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The Cornell HOTEL AND RESTAURANT ADMINISTRATION Quarterly

MAY 1961 · Vol. 2, No. 1

Anniversary Number

A Tribute to Dean H. B. Meek

- Food Facilities Planning and Design 8
- Planning for Successful Operation 10
- The Gourmet Restaurant 32
- Designs for Dining 39
- No More Kitchens in the Future? 82

SCHOOL OF HOTEL ADMINISTRATION • CORNELL UNIVERSITY • ITHACA, N.Y.

A Tribute to Dean Meek

HOWARD BAGNALL MEEK, Ph.D., Sc. D. in Ed., Dean of the School of Hotel Administration at Cornell, and E. M. Statler professor of Hotel Administration will retire July 1, 1961, after thirty-nine years as head of the School.

Prof. Meek has whole-heartedly devoted himself to making his school one of the most famous in the world, one with the finest building and equipment, and one with an outstanding faculty. The measure of his success is the progress of the School's graduates, of which there will soon be more than 2,000. These graduates, one of whom will succeed him as Dean, are active in every phase of hotel, restaurant, club, industrial feeding and institutional management in practically every country on the globe. If the "proof of the pudding is in the eating," then Prof. Meek has concocted an outstanding pudding.

For more details concerning Dean Meek, see page 87

ROBERT ALFRED BECK, Ph.D., professor in the School of Hotel Administration and presently Secretary of the Cornell Society of Hotelmen, will succeed Dean Meek on July 1, 1961.

"Bob," as he is known to many, received his bachelor's degree from the School of Hotel Administration in 1942 and went immediately into the U. S. Army. He was wounded in the Normandy invasion and later decorated for courage in action. After the War, he served as office and personnel manager for the Quincy Market Cold Storage and Warehouse Company of Boston before returning to Cornell to earn first a master of science and next a doctorate. He joined the School's faculty during the spring semester of 1954.

A dynamic teacher of courses in human behavior and labor-management relations as well as of accounting, Professor Beck has been in demand as a speaker before various training groups and conventions over the world.

Professor Beck is married to the former Mary Murray and they have three daughters: Susan, Janyce, and Robin.

266c

An Editorial . . .

With this issue the Quarterly can light its solitary candle on its first birthday cake. We celebrate our first anniversary. The efforts of its staff have been continuous and assiduous. The contributors have labored long and given generously of their ideas. The Statler Foundation has been most generous in its support. The readers have been enthusiastic in their response.

The editors are grateful to all, and in reciprocity will endeavor to justify the continuance of that faith through the superiority of Volume II.

* * * *

No door is closed more tightly than that which leads to the future. No glass is more opaque than the panes in the windows of tomorrow. But no pursuit is more intriguing to the alert mind than the search for an understanding of what is to be. Few data are as significant in today's decisions as are our estimates of next year's needs and potentials.

The restaurant industry, for centuries an industry of conservative tradition, is in our generation suddenly quickening its pace to catch up with the twentieth century and prepare a little for the twenty-first.

Two thousand years ago there lived and practiced in Rome one of the world's greatest chefs, Apicius. A compendium of his recipes in the original Latin is one item in the famous Vehling Collection of first editions dealing with the classical culinary art given to Cornell University by Mrs. E. M. Statler. Those recipes have been translated into every modern language, several times into English. Dishes described therein reappear in the cookbooks of all nations and of all times, right down to the present.

To read Apicius is to realize that that distinguished, celebrated old Roman cook could have stepped out of a "time machine" right into a 1950 American restaurant kitchen, cover his toga with a plastic apron, whet his knife a little, and start out again right where he had left off in his old kitchen on the hilltop beside the Tiber.

The fuels would be a little different, the stoves more convenient, but the raw products, the procedures, and the final dishes would be little different from those he used to work with, from those his successors over the generations have worked with.

But today Apicius might find some of the raw products a little puzzling. Canned items, plain fruits and vegetables he could quickly take over. If he was puzzled by the solid cake of deep frozen vegetables, he could leave it on the table until it melted into more recognizable form. But boil-in-bag deals, the prefabricated cuts, the pre-prepared mixes, the brown-and-serve, the low-calory diet liquids would call for substantial changes in Apicius' procedures and in his thinking. And if by any chance his arrival were timed for the late 1960's or 1970's his confusion would be complete.

Apicius, discouraged by the complexity of the problems that are developing out of the "simplification" of modern food production, might very well simply step back into the time machine to return to Rome and his own early century. But we moderns have no choice. We must face the situations of today and try to be ready for those of tomorrow. Never has the need to be up-to-the-times, up-to-date, up-to-the-minute been more urgent than it is today. The new ideas, the new materials, the new equipment, the new labor philosophies, the new consumer demands, come tumbling into our laps so fast we can hardly sort them, much less understand and cope with them. We need all the help we can get one from another.

As with the present series of articles, the policy of the Cornell Hotel and Restaurant Administration Quarterly will be to try to bring to its readers immediate word of advances all along the front in the march toward a more efficient, a more effective restaurant industry.

The Cornell
HOTEL AND RESTAURANT ADMINISTRATION
Quarterly

MAY 1961 Volume 2, No. 1

THE CORNELL HOTEL AND RESTAURANT ADMINISTRATION QUARTERLY is devoted to disseminating technical knowledge and research relating to hotels, motels, restaurants, clubs, industrial feeding, hospitals, and institutions generally.

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Published in May, August, November, February with the aid of the Statler Foundation by the School of Hotel Administration Cornell University

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School of Hotel Administration
Cornell University
Ithaca, New York

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Second-class postage paid at Ithaca, New York

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Subscriptions, $3.50 annually
Single Issue, $1.00

Contents

Restaurants: A Management Opportunity 4
Trends in Hotel Restaurants 5
Common Problems of American and European Restaurateurs 6
Ideas are Food for Thought in Food Service Planning 8
Restaurant Associates, Inc. — Planning for Success 10
Sheraton-Cleveland's *Kon Tiki* 19
Two Daring Young Men on the Restaurant Trapeze 23
Modern Food Service Design and Equipment 28
The Gourmet Food Operation 32
Lighting Affects Your Effect! 36
Designs for Dining 39
Los Angeles International Airport's Food Facilities 44
In Defense of American Food 47
Stage-Managing Your Buffet 48
Traffic Flow: Good Layout Cuts Costs 51
Dish Pantry Design: An Economic Solution 61
Dishroom Renovation 67
Method and Motion Studies 71
The Architect Views the Food Service Consultant 76
The Food Facility Engineer as viewed by a Food and Beverage Manager 80
No More Kitchens in the Future? (*A Symposium*) 82
Dean H. B. Meek 87

The opinions expressed herein are those of authors and not necessarily those of Cornell University.

Restaurants

Sales up • Costs-Labor up • Size up • Numbers down

A MANAGEMENT OPPORTUNITY!

James Terry Radigan*
Director of Economics Section
National Restaurant Association

Sales Outlook

What does the future hold for the restaurant industry?

Most experts feel that the current recession has bottomed out. They now forecast a slow upturn for business generally. One of the most encouraging signs for the restaurant industry was the February increase in retail sales by 1 per cent. We think this foreshadows better business for the restaurant industry.

The principal concern of the restaurant operator, though, is not what will happen to restaurant sales generally but rather: What is his own opportunity for getting this business? And what are his chances for making a profit?

For a clearer insight into the opportunities of the restaurant industry, we have to go beyond a prediction of total restaurant sales and their relationship to the overall economy and to retail sales in particular.

A Few Questions

How many restaurants will be competing for this restaurant business we say will be available? What about the size of these restaurants? What will happen to restaurant prices? Will food cost the operator more? Do we expect labor cost to continue its ascending rate? And most important of all, can we make any money in the restaurant business this year and next and the years beyond?

Restaurant Sales Follow Retail Sales

One of the more important economic indicators to the restaurant industry is retail sales. Experts tell us that retail sales will rise soon and even that they began their rise last February. Another indicator—department store sales—rose markedly in February. Restaurant sales follow the trend of the retail sales pattern generally, although restaurant sales are not quite as sensitive to change.

When times are relatively bad, people tend to cut purchases of durable goods—auto, appliances, and houses—first, while continuing food purchases at about the same level. There is clear evidence that restaurant sales dropped off in the latter part of 1960, which corresponds to the dip in the general economy, but the drop was not as acute. By the same token, we can expect a gradual rise in the restaurant business beginning now but not nearly as great a rise as will be experienced by the retail trades generally.

Grocers Compete

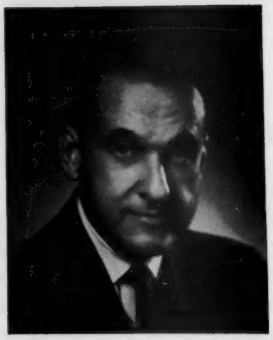
Another observation should be made with respect to the future sales of the restaurant industry. For the last twelve years retail sales generally have been rising at a much faster rate than eating and drinking place sales.

Even more pronounced has been the rise of food stores' sales. From 1954 to 1958 retail sales have increased 17.5 percent, food stores, 23.3 percent, and eating and drinking places only 16 percent. Thus the trend is for restaurants to lose more and more of their share of the consumers' dollar.

In 1948 eating and drinking places received 8.3 percent of total retail sales. Today this figure is less than 7.3 percent. During the same period food stores improved their position from 22.7 percent to more than 24.6 percent of the total. Thus, the restaurant industry lost 12 percent of its share of all retail business while food stores improved their position by 7.1 percent.

(continued on page 93)

* Mr. Radigan is currently making an intensive study of the economics of the restaurant industry and its relationship to the overall economy. He will provide the National Restaurant Association's members with monthly reports of what to expect on a long- and short-term basis in various areas of the country and segments of the restaurant industry. For the past eight years Mr. Radigan has been engaged in economic and marketing research with the food service and aircraft industries. He holds degrees from Georgetown University, Washington, D.C. and St. Louis University, St. Louis, Missouri.



Trends in Hotel Restaurants 1956-1960

by Maurice B. Burritt, C.P.A.
Director, Special Services Division
Horwath & Horwath

What has happened to hotel restaurant operations in the past five years? Statistically, the picture is somewhat confused.

Hotel restaurant sales nationally were 3 percent higher last year than in 1956. In the large hotels in urban areas there have been some modest increases in volume, although profits are lower. The smaller transient hotels are generally doing substantially less food and beverage business today than five years ago.

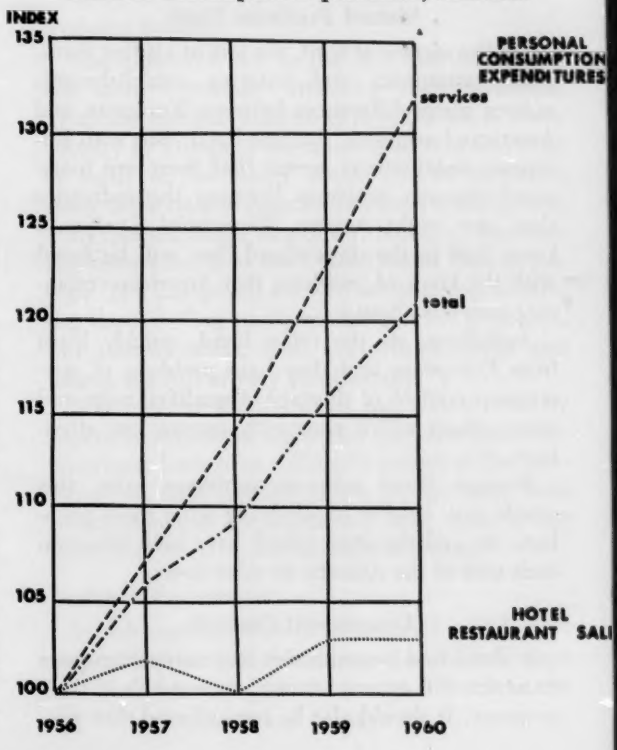
For example, the 50 small transient hotels represented in our study of hotel operations had annual food and beverage sales in excess of $27.5 million in 1956. In 1960, preliminary figures show that restaurant sales in that group were only slightly above $26.5 million. Some of the hotels experienced decreases of as much as 50 percent in restaurant volume in the 5-year period. A few showed modest increases. The large transient hotels in the 1956 study had food and beverage sales of nearly $72 million. Those sales increased all of 2 percent in the 5-year period, certainly not a significant growth.

The accompanying chart shows a comparison of the increases in personal expenditures for services, and the total spent on durable and non-durable goods and services, with the changes in the index of hotel restaurant sales taken from our monthly "Trend of Business" report. People apparently have money to spend, but they are certainly not spending it in hotel restaurants.

What has happened is very complex and appears to have brought about a major change in the style of operation in hotel restaurants. Although dining out seems to be as popular as ever, eating habits are not the same.

Not only are the heavy portions and rich food of the old-style hotel restaurant no longer in demand, the typical hotel dining room of twenty years ago is undergoing a drastic transformation. It is rapidly being replaced by the so-called "specialty restaurant," which gets its name from the fact that it specializes in a certain type of food and often has a décor in keeping with the type or nationality of the food served. Sales and publicity people tell us that this is what the public wants. Food control experts point out the advantages of limited menus and the higher gross profit in dollars that results from selling more steaks and less stew. *(continued on page 95)*

Hotel Restaurant Sales in Relation to Personal Consumption Expenditures, 1956-1960



Common Problems of
American and European Restaurateurs

Last year the National Restaurant Association joined International Ho. Re. Ca. (Union International D'Organisations Nationales D'Hoteliers, Restaurateurs, Et Cafetiers), *thereby expanding its scope of activities to an international level. Officers and several members of the NRA attended the board of directors' meeting of the international association in Zurich during the spring of 1960. NRA was also represented at the international convention held in Vienna last October.*

Problems facing members of the restaurant and catering industry on the other side of the Atlantic had a familiar ring to the American visitors. In some instances, the Americans found that European operators take a different approach in solving common problems of the industry. A more detailed report is given in the N.R.A. News *for September 1960.* — Editor

by Donald Greenaway
Executive Vice President,
National Restaurant Association

Mutual Problems Exist

On the surface at least, the tourist visiting European restaurants and catering establishments notices many differences between European and American businesses. But first-hand visits with European restaurateurs reveal that there are many more common problems between the industries than one might suspect. Thoughtful Europeans know that in the days ahead they will be faced with the kinds of problems that American restaurant men talk about.

Americans, on the other hand, quickly learn from Europeans that they have problems of government control, of shortage of qualified help, and many others which constantly occupy our attention.

Because these common problems exist, this article may help in highlighting what these problems are and the steps which have been taken on each side of the Atlantic to solve them.

Government Controls

It should be remembered that many European countries still exercise control over much of their economy. It should also be remembered that government control of the economies is a necessity in many of the small, highly dependent economies of Europe. Thus restriction on business activity, labor laws, minimum wages and taxation are not new problems to Europeans.

The Workweek

Austria recently enacted an important wage-hour act. Under this law, the work week is limited to 45 hours, and only under special circumstances is the employer allowed to use the employee as much as 54 hours. In other countries, the 54-hour week is maximum without overtime penalties and sometimes legal penalties.

Wages

Wages are usually established by the government with the co-operation of labor and management. Commonly an employer must give at least four weeks of vacation pay, and very often extra Christmas pay. Thus the yearly wage is paid in 14 increments and employers frequently resort to premium pay which may be from one to four months' pay on top of the established base.

Terminating Employment

In some instances, the employer is forced to carry employees for long periods once they are hired. Even though he may have only six months' work for the employee, he may be forced to carry the employee as long as six months beyond the termination period. This has a tendency to limit expansion and to restrict employers from gambling for future business. It is a very large penalty.

Tax-Free Competitors

In France, the government permits tax-free enterprises to compete openly with tax-paying enterprises. As a result, the number of meals sold in public restaurants has declined sharply, while

at the same time those sold in tax-free institutions and industrial plants have risen. These artificialities constitute severe handicaps to the operation of a free-enterprise system.

Industry-Set Minimum Wage

On the other hand, European restaurateurs were amazed at the proposals for minimum wage for the American restaurants. Where minimum wages are applied in Europe, they are determined industry by industry, and restaurant men are not held to the same standards as heavy industry. Europeans believe, as many Americans do, that they could not cope with an all industry, all business, governmentally imposed minimum wage.

Restraint of Enterprise

In certain countries of Europe, cartels are encouraged. The market is controlled by restraining the expansion of the number of businesses. Frequently the businessman must submit his application for license to the people who are to be his competitors. Control of this kind would be illegal in America, except in the licensed beverage field where the state or local governing bodies determine the number of licenses that are to be issued.

The American businessman can observe first hand and can learn from his European colleague what further government control of business can be, particularly in the carefully regulated economies of certain countries.

The Changing Market for Food Services

European restaurants catering to the tourist are operated mainly for the classes—not the masses. But food service in medium- and lower-price ranges are developing in most European countries.

The upper-crust European restaurant is usually well known to Americans. Their services are superior and their prices are often extremely high even by American standards. The proprietors of these establishments are frequently second- or third-generation restaurateurs. They report great difficulty in maintaining their standards and their markets at the prices that must be charged. Industrial catering and medium- and low-check, average restaurants are under rapid development in Europe.

The American market, on the other hand, is fully developed. There is a food service for just about every strata of society. Competition in every area is at a high level. On both continents the markets change and develop as the economies change. The changes are more rapid in America than in Europe, but they are occurring on both continents.

Multi-unit operation in Europe is not highly developed. But most Europeans believe that they, too, will soon have multi-units spread across the face of Europe. American restaurateurs are extremely resilient to a changing market, and this generation of Europeans is beginning to develop this same resiliency.

Recently Raymond Olivier, owner of the Grand Vefour restaurant in Paris, announced formation of a frozen-food products company to exploit the housewife's desire for gourmet dishes in her own home. All things considered, this is market exploitation of a high order as we know it.

Shortage of Qualified Personnel

Ever since World War II, European restaurateurs have been suffering from a shortage of qualified, trained personnel. This shortage has made it difficult to staff their operations with competent people who can perform as they did in the past. Every country, except Switzerland, reports such a shortage. At certain levels in our country, the restaurant industry has been experiencing this shortage for more than thirty years.

Training Schools

The difference lies in the fact that Europeans are more vigorously attacking their problems. There are national academies in operation in every country in Europe. Fine training schools also exist in many of the larger cities. The development along these lines in America has been much slower.

In relation to the size of our industry, there are far fewer schools in the United States than in Europe. The Europeans are well on their way to solving their staffing problems for service personnel, but trained chefs, food supervisors, cooks and bakers are still in very short supply.

Top men in Europe draw top wages even by American standards. Up to this time European restaurateurs have been willing to permit skilled personnel to cross borders while at the same time restaurateurs in each country have been doing what they could to alleviate the shortage.

Trainees Encouraged

In this country educational leadership and effort is lagging. The need is for more of both. In Europe the idea of training for the young is firmly in the

(continued on page 97)

Ideas are food for thought in Food Service Planning

Prof. O. Ernest Bangs
School of Hotel Administration,
Cornell University

"This idea is worth a million dollars!" Have you ever heard or made this statement? More than likely you have, for this expression is one often heard in our busy lives. And you may well wonder what this statement may have to do with food service planning. Whether it does or not depends upon the standard of values we affix as the worth of a particular idea. Ideas of worth are constantly being sought by men of science and astute businessmen as well. Thus a fully developed idea—or a combination of properly planned ideas—is the most saleable and lucrative commodity of the day.

The trade journals are forever filled with ideas. We are continually blessed with ideas developed and being developed for the overall improvement of the food service industry. Periodicals in issue after issue, publish hundreds of articles, stories, and editorials about every phase of food service management. Many set forth practical ideas that have been developed, tried, and proven to be of considerable worth.

These ideas range over the entire periphery of food service: from menu planning to the all-important objectives in food merchandising; from recipe development to final preparation and service; from minor problems in personnel management to national economics of the industry; from routine bookkeeping to financing the gigantic enterprise; from codes governing sanitation, public health, safety, and occupancy capacity in public areas to the legal problems in higher office; from the selection and maintenance of equipment to the theoretic principles of design; from a short course in kitchen planning to an international competition in food service planning and design.

Thus, the trade journals provide an ever-flowing source of ideas for food service planning. And the reader, confronted with all these ideas for improvement and with the wonderful food service facilities that have been built or are now being planned, engineered, and installed in every phase of the industry, may well ask "What more can be said or written that has not already been said many times?"

Problems Needing Solution

Indeed, there is much that can be considered because the food service industry still has many perplexing problems. Although these problems have been stated again and again in many different ways, they still merit our taking a fresh look of appraisal.

As we study the trends and vital statistics of the food service industry as published in the trade journals, we become more and more cognizant of these facts:

> Despite all of the wonderful ideas for improvements and new developments, each year a large percentage of our restaurants fail or go out of business for one reason or another. Industrial in-plant feeding operations, hospitals, and other institutions are not able to go out of business; instead, these establishments must heavily subsidize their food service departments.

Why must this be the rule? Undoubtedly there are many logical reasons and enough could be uncovered through research to write volumes about this topic. It is not my purpose to delve into this subject to great length. But it would prove beneficial to some if a realistic light could be thrown

upon a few of the negative ideas and reasons behind the downfall of an otherwise sound company.

When the going gets tough, some proprietors, faced with financial reverses, take a penny-wise and pound-foolish attitude toward capital improvements and the rehabilitation of tired, worn-out facilities. This type of reasoning is often the direct cause of business failure later on. There are likewise many cases on record where a business was over extended because of unwise planning.

An "Informed Management" Is Essential

The successful restaurant, like other businesses, depends upon the rational direction of an informed management. Management's clear vision and its alertness in meeting all changing conditions with well-directed aggressiveness can put a business into the black or keep it out of the red with a minimum of expenditure in relation to the benefits that can be derived through well-planned improvements and/or rehabilitation.

Every owner who opens a retail service establishment hopes for a measure of financial success. This success is expected from the outset; else the venture would not have been considered, financed, developed, and put into operation.

Yet in many of the food service establishments opened each year, it seems that this hope for success represents most of management's preliminary programing and planning. Utilizing hindsight instead of proper forethought, they have literally failed in business before they get going.

The High Price of "Goofing"

Due to insufficient research of important factors during the earliest period of preliminary programing and later on during the final planning and engineering, management often misses or overlooks essential details that become readily apparent after the facilities have been installed and the establishment is ready to be put into operation.

It is not uncommon to find costly changes being made in various departments a short time after a food service establishment has been put into operation because not enough thought was given to fundamentals during the all-important planning period. Such lack of forethought is most expensive in terms of inconvenience, aggravation, disharmony, and frustration as well as in dollars and cents.

Our most successful food service operators of today realize that foresight during preliminary programing and planning can save them hundreds of dollars in construction and food costs and moreover subtract thousands of dollars from their operating costs. Savings and profits, they know only too well, come from a number of small things. In the same manner, they realize that small, overlooked details in preliminary planning and programing can cost them substantial sums.

Much pressure to meet deadlines is built up during the final stages of developing the working drawings and specifications. At this time the own-

(continued on page 99)

Prof. O. Ernest Bangs and his students are planning the details for actual projects in the Food Facilities Program established at Cornell in 1958. This program is sponsored by the Food Service Equipment Industry, the National Association of Food Equipment Manufacturers, the Food Equipment Manufacturing Association, the Food Facilities Engineering Society, and the International Society of Food Service Consultants. These organizations contribute a substantial sum to insure the program's professional development. Professor Bangs, who heads up the curriculum, is an active partner in Stephen-Bangs Associates, Inc. of Detroit.

Restaurant Associates, Inc.

Planning for Successful Operation

The whole is greater than the part. We are capable of wisdom and we are part of the world. Therefore the world is wise.

—Zeno (264 B.C.)

Is there a "pat formula" for creating and operating a successful restaurant? The answer, according to Restaurant Associates' executives who have created a number, is a resounding "No!"

If there were a "pat formula," any person could find a location, dream up a romantic name, engage a chef, and ask the decorators and equipment people to fill up the four walls. But unfortunately, this is not the road to successful restaurant operation and the attempt to "find the formula" through trial-and-error may explain the many failures that become industry statistics every year.

How then does Restaurant Associates approach the creation and operation of a restaurant? The answer is to adopt a completely professional attitude toward all phases of restaurant creation and operation and to make each restaurant fit its location and market.

This company serves 37,500 meals a day in 33 restaurants of widely different character, ranging from the elegant Four Seasons and the sumptuous Forum of the Twelve Caesars to the quick-service Riker's Cornerhouses.* They follow the dictates of thorough market analysis and product analysis linked with good merchandising procedures and with careful attention also to costs. They approach these procedures in a thorough-going, dedicated manner which, for them, has resulted in an amazing and well-warranted success.

Steps to Success

- *A thorough market survey* of the location and of the potential patrons who frequent its neighborhood.
- *The creation and development of a central theme* appropriate to the location and its market.
- *An exhaustive and comprehensive researching of the atmosphere, menu, appointments, and service* required to develop this theme with authenticity, sincerity, and close attention to detail.
- *Development of the product—the atmosphere, the menu, and its merchandising—so that it is true to the original conception,* with not a single note off key. This involves constant and careful checking and rechecking by the company's executives and experts. Consultants are brought into the picture at this time.
- *Training of the personnel far in advance of opening,* so that they are thoroughly indoctrinated with the company's concept, feel themselves an integral part of the operation and its merchandising, and are dedicated to its success.
- *Follow-through, once an operation is opened,* to make certain that the original conception is being adhered to, and, wherever possible, improved.

* Restaurant Associates' operations include The Four Seasons and The Brasserie in the Seagram Building; The Forum of the Twelve Caesars, La Fonda del Sol, and the Tower Suite in Rockefeller Center; Leone's in the theatre district; the Newarker at the Newark Airport; The Hawaiian Room, Paul Revere Tavern and the banquet rooms of the Hotel Lexington; the John Peel, an 18th century British Tavern in the Island Inn on Long Island; and fourteen Riker Cornerhouses.

To the above-going, one could add carefully thought-out advertising and promotion. The manner in which Restaurant Associates approaches a project insures widespread publicity in a multitude of newspapers and magazines, on radio and television, before the restaurant ever opens its doors.

"Our greatest need today, one that we are dedicated to, is to raise the restaurant industry to a more professional level," said Joseph Baum, vice president of the company. "Our profession is made up of many elements, not merely a cost-control system. We operate on the premise 'how much can we afford to serve?' rather than 'how little can we get away with serving?' To us, 'costs' are a tool, not an oppressive system that governs the operation. The manner in which such tools are used depends upon management's viewpoint."

"That which makes a restaurant successful is ephemeral—the total is more than the sum of its parts," Mr. Baum continued. "Each of our restaurants has a different theme, a different atmosphere, different food, different service. We approached each restaurant as an opportunity to achieve a new height through better personnel, better workmanship, better productivity, and also to achieve better profits through excellence."

But let us return to the basic steps that Restaurant Associates follows in creating a restaurant. The first of these is the market analysis.

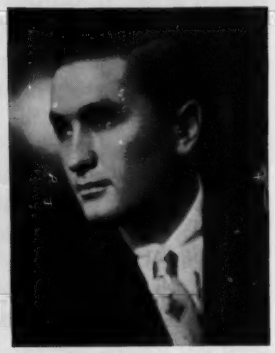
* Restaurant Associates' sales volume had doubled in the last five years and net earnings have almost tripled. The estimated sales volume for 1961, based on the first three months' of operation, is about $20 million.—*Editor*

The Market Analysis

The basic theme of the restaurant to be created is keyed to its location and to the type of people who live, work, and visit within the circumference of this location. Because each of Restaurant Associates' operations has a somewhat different location, the personality of each is totally different.

Consider, for example, The Four Seasons, located on New York's exclusive Park Avenue in the Seagram Building, world-renowned for its modern architecture and construction. Nearby are the United Nations and the magnificent apartment dwellings and hotels housing the wealthy, the cultured, the widely traveled, the gourmets. What type of restaurant should be developed to fit into this location and to attract the sophisticated habitués of this area?

For such a cosmopolitan, knowledgeable group, Restaurant Associates decided to create a wholly new type of restaurant, one that was as contemporary as the building and one knowledgeable of the best in the world's cuisine, design, and service. New York is a city that has four seasons and each season has its own attractions and its own following—the fashion shows, the opera, the theatre, sporting events, and a multitude of other affairs. Thus, for the first time a restaurant cognizant of New York's seasonal attractions was conceived—The Four Seasons. And the seasonal theme was not to be limited merely to the name. The menu and the details of decor—plantings, table appointments, chair upholstery, service uniforms—were to reflect the spirit of each season, spring, summer, fall, and winter.

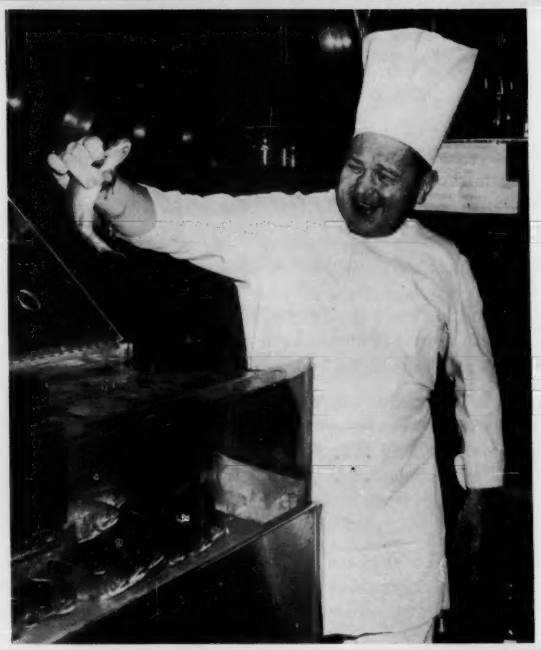


Jerome Brody (*extreme right*), President of Restaurant Associates, Inc., and Joseph H. Baum, Vice President. Mr. Baum was graduated from Cornell University in 1943.

The Four Seasons' decor features a 20-square foot marble pool. Such unusual installations must be resolved far in advance. The structural designers had to plan for building the footings and columns adequate to support the extra load.

Another example in the development of a theme is The Forum of the Twelve Caesars. Located in Rockefeller Center, another high-rent district, The Forum is in the heart of New York's communications world. Here ideas are the coin of exchange. In seeking a restaurant personality to symbolize this theme of the exchange of ideas, Restaurant Associates settled upon ancient Rome, the hub of the world that led to the development of Western ideas. And the Romans were gusty, food-loving people who liked to live well, a most fortunate combination of history and gastronomy!

Similarly, La Fonda del Sol, in the new Time and Life Building in Rockefeller Center, is located in the middle of New York's entertainment, shopping, and tourist world. What better theme than the festive, holiday warmth and folk arts of Latin America?



"From stream to skillet" illustrates the manner in which Chef-Director Albert Stockli and his staff assure patrons of The Four Seasons only the finest and freshest of foodstuffs.

The Forum of the Twelve Caesars' attractive copper and brass service plate is unbreakable. Manufactured in Milan, it cost about $25 or one-fourth the amount for which it could be made in the United States. (*Right*) Flaming presentations and food served from chafing dishes made it mandatory to design an additional 10 percent capacity into The Forum's airconditioning system.

In matching the spirit of a restaurant to its location and natural market, Restaurant Associates' executives ask themselves and each other these questions: "Does the theme make sense?" "Will it pay?"

And in high-rent areas the company has shown Yankee caution and canniness in developing restaurants to succeed on a long-time basis: leases generally specify a fixed rental plus a percentage of gross or net income, with the percentage scaled down as income grows higher. Restaurant Associates' landlords are thus eager to see them succeed.

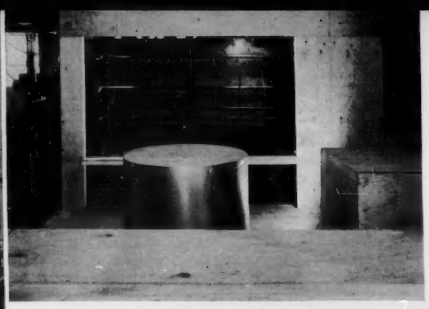
Researching the Product

It is in this step—researching the basic theme of a new restaurant—for which Restaurant Associates has developed a unique, intensive approach. This company literally leaves no stone unturned to get at the facts.

The pattern was developed with The Newarker, the company's first top-notch restaurant opened in 1953 and later followed with the complete revamping of The Hawaiian Room at the Hotel Lexington: intensive study of the history and culture of a theme; extensive travel to countries where current and ancient lore can be found; detailed collection of information by their executives and by experts called in as consultants.

The essence of Restaurant Associates' creativeness is to mate the food to the service appointments and the atmosphere of the surroundings of the new restaurant. They conceive of a total whole, in which every part adds to the total concept, once they have found an acceptable theme. And for every restaurant they develop a unique entity, involving the foodstuffs, the menu, the menu design and language, the decor, the staff's uniforms, the table appointments, the serving utensils and carts, the match folders—in fact, everything the patrons see, eat, and touch is part of this central theme.

This creative approach of keying the parts to the whole in restaurant design has been recognized as a significant contribution to the culture of our times. Elizabeth Gordon, in *House Beautiful* (March 1961) writes, "They have raised the act of dining out to a level higher than it has ever before reached in our time."



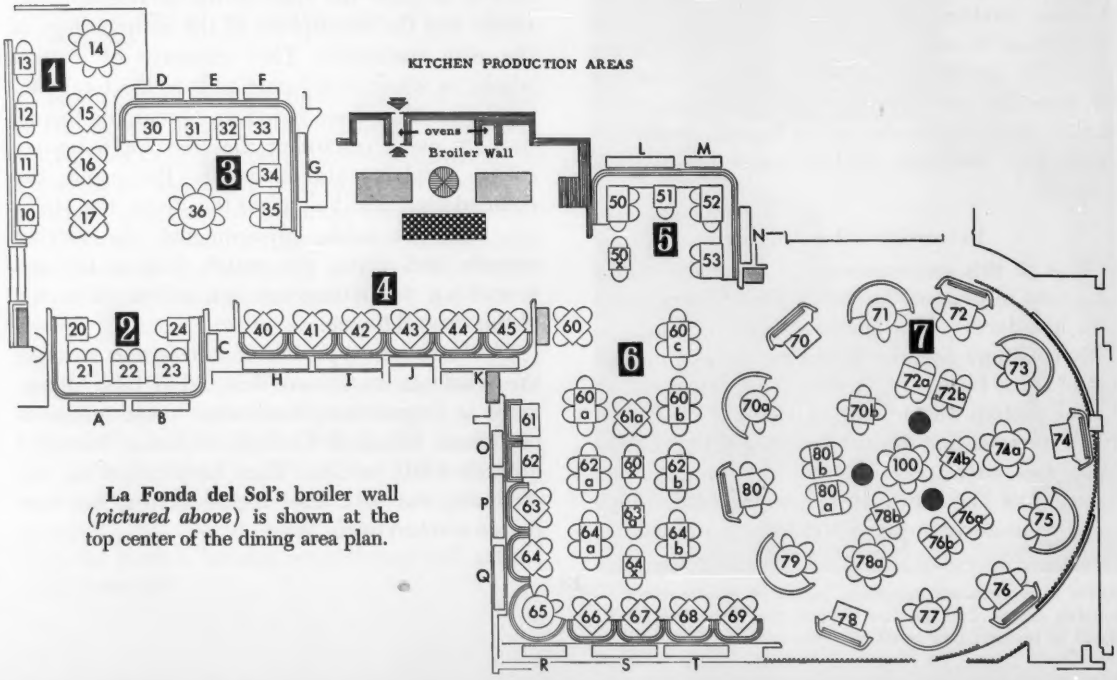
La Fonda del Sol's broiler wall (*shown in operation at the left*) was planned after a full-scale mock up (*shown above*) had been built to permit the non-technically trained operating staff to visualize the physical relationships that would be involved in using the broilers. The location and structural arrangement of the broiler wall is diagramed below in the floor layout plan.

Olga Gueft, evaluating The Four Seasons for *Interiors* magazine (December 1959), says that

> New York has two masterpieces: the Guggenheim Museum and this restaurant. The Guggenheim is Beethoven's *Ninth Symphony* and The Four Seasons is Mozart's *Magic Flute*. Both are works of joy. The Four Seasons combines its exceptional sumptuousness with exquisite refinement. In a period when so many restaurants are designed to look like boudoirs or baudy houses, here is one as dignified as a bank. But unlike the dignity of banks . . . the dignity of The Four Seasons is combined with romanticism, its discipline with serenity, its sober magnificence with lightness of heart . . . and above all is a gracious lyricism.

Industrial Design (November 1959), reporting on the design development of the china, glassware, and the silver-plated hollowware for The Four Seasons by Garth and Ada Louise Huxtable, comments upon the collaboration between this design team and the executives of Restaurant Associates:

> The result of this collaboration is a group of coordinated accessories which the designers feel mirrors the distinctive character of the restaurant and is easily identified as The Four Seasons' services. In this, they are supported by the Museum of Modern Art, which has chosen eighteen of the items for its permanent design collection.



La Fonda del Sol's broiler wall (*pictured above*) is shown at the top center of the dining area plan.

This high editorial praise from magazines that shape Americans' appreciation of the beautiful and the esthetic can be construed as a direct tribute to the thoroughness and resourcefulness with which Restaurant Associates' executive team studies and carries through its ideas with architects, designers, and consultants.

The Quest for Perfection

In their quest for perfection to develop a restaurant theme, the company's executives spent years (two years for The Forum and two and one-half years for The Four Seasons, and almost an equal length of time for La Fonda del Sol) doing the most fundamental kind of research.

For The Forum, they began by reading the English translations of Latin classics like Epicurus (from whose name the adjective "Epicurean" is derived), Apicius, Athenaeus, Apuleius, and Suetonius' *The Twelve Caesars*. Company executives traveled widely throughout Europe, visiting museums with exhibits of ancient Rome, as well as Rome, Pompeii, and Herculanium. From this research the basic design of table appointments, the menus to be developed, and other refinements of The Forum's theme were obtained. Many of the items are reproductions of museum pieces that had to be made by European craftsmen.

Another intensive program of research was embarked upon for The Four Seasons. A team of thirteen executives spent months traveling through eighteen European countries collecting information for a contemporary restaurant with an international background.

Before opening La Fonda del Sol, the utmost pains were taken to insure authenticity of Latin American atmosphere, food, and service. Restaurant Associates' executives traveled over 400,000 miles through Central and South America to compile information and select decorative detail.

Developing the Product

As the foregoing indicates, Restaurant Associates' staff knows clearly what it wants to achieve in a restaurant. Their own deep delving into the design literature, history, and gastronomy of a theme make them quite well informed before they even talk to designers about a project. They can provide designers with a very detailed written and verbal account of exactly what they want in an operating situation.

But their communication does not end there. Daily seminar sessions are held with architects and design specialists, in the beginning at Restaurant Associates' headquarters, sometimes in design studios, and later on at the site of construction. Changes and modifications are made by company executives and designers as the work progresses from the drawing boards up to and including the time of installation. The ultimate product, when completed, is a melding of the work of design specialists with the restaurant expertness of the company's executives.

The Tower Suite's scintillating panorama of New York from the 48th floor of the new Time and Life Building in Rockefeller Center is expanded by placing full-length mirrors between the glass panels. These mirrors were planned to be set into the window soffits before other construction was completed. Observe also the elegant simplicity of the china, crystal, and silver service. Not a single discordant note detracts from the theme of subdued luxury and good taste.

In selecting architects, designers, and consultants, Restaurant Associates searches for persons noted for their interest in and development of design themes similar to that of the project under way.

William Pahlmann, who helped initiate the theme for The Forum of the Twelve Caesars, had already acquired the portraits of the Twelve

Caesars from an Italian villa at the time he was retained to design The Forum's interior.

For The Four Seasons, the company planned to develop a classic, contemporary restaurant to symbolize today's cultural world—one suitable to the modern new Seagram Building. Phillip Johnson, the associate architect for the building oversaw the restaurant's design. He was assisted by William Pahlmann, interior designer. The well-known designers, Garth and Ada Louise Huxtable were selected to design the tableware and service appointments; Richard Kelly, to plan the lighting; Emil Antonucci, the graphics; and Karl Linn, the plantings. The cloud-like ceiling sculpture of gold-dipped bronze rods in the bar-grill room is the work of Richard Lippold, a distinguished young sculptor. In brief, the company sought out and retained America's recognized designers with a special bent for creativeness to design new classics for The Four Seasons to match the ideas Restaurant Associates had previously developed.

For La Fonda del Sol's Latin-American theme, the designer Alexander Girard, well known for his Latin-American creations, was engaged to oversee the development.

Other Specialists

In addition to architects and designers, the company also engages an array of other specialists, noted in their particular fields. These people are called upon to research special phases of art, literature, supply sources and other areas. A specialist in mushrooms was employed, for example, to look into the types of mushrooms and where they could be obtained for The Four Seasons. Elena Zeletaya, the California authority on Mexican cuisine, advised the company on Latin-American recipes as one phase of their menu research for La Fonda del Sol.

One of the most difficult tasks in detailing a new operation falls upon the shoulders of Mr. Lee Jaffe, vice president in charge of purchasing and design. Mr. Jaffe works closely with designers of tableware and equipment. He locates makers who are interested in the same things that Restaurant Associates is interested in and who will carry out their design themes with the utmost attention to perfection and detail.

Appointments and furnishings must also meet the tests of usability and practicality. To give but one example, the copper and brass service plates for The Forum were custom-designed in the pattern of a museum piece and made in Milan at a cost of about $25 each. The same plate, if mass-produced by an American manufacturer by molding with a lost wax process, would have cost at least $100. Ordinary service plates, breakable china ones, often cost $10 to $12. The Forum's service plates, in addition to being handsome, unusual, and authentic to ancient Rome, are unbreakable and, except for occasional pilferage, do not need replacement.

The Four Seasons' service plates are also unbreakable and have four seasonal china inserts to make them appropriate to the seasonal change in decor. The service plates, in both establishments, provided the basic module for planning the table setting, the table itself, the service carts, and much other equipment.

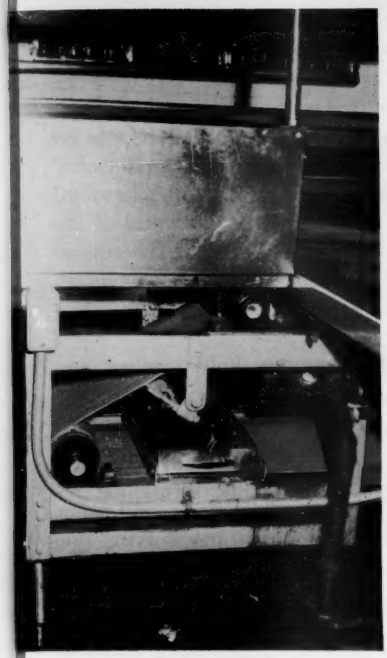
Developing the Menu

The menu for a new restaurant is also developed through the team approach. Basic recipes are collected through wide reading of books on gastronomy (of which the company maintains an extensive library for its employees) and executives travel widely for months gathering many treasured old and new recipes. Food specialists are also consulted.

These many recipes, carefully documented, are then developed by Restaurant Associates' executives with Chef-Director Albert Stockli and his staff. Dozens of dishes are prepared and sampled and modifications are made to improve the recipe and to take advantage of better and newer food products.

As an illustration, some $40,000 was spent in developing suitable recipes for La Fonda del Sol, during which company executives, friends, selected food writers, and gourmets tasted a wide array of Latin-American dishes (sometimes as many as 35 at one setting) before narrowing the menu selections down to those likely of success.

For each restaurant's wholly different cuisine, only the best and freshest of foods are sought out and purchased. Meats must measure up to the most rigid specifications for quality. (At The Four Seasons, "hot house baby lamb" is on the menu year around.) In season, certain fruits and vegetables are purchased truly "garden fresh" and delivered the same day they are to be used from nearby farms where they are especially grown, for the company. When the quality is best in other parts of the world, such fruits and vegetables, along with other hard to obtain food prod-



The Brasserie's production area has a conveyor belt above the fryers to the rear. This is the outgoing belt to the counter service area. Salamander (*masked in picture*) also opens to the belt behind it. (*Left*) The outgoing belt to The Brasserie's counter service area is shown below the glass baskets. The incoming belt to the dish table (*at table level*) is shown as it turns down over idler roller. Refuse on the lower belt is then automatically dumped in a refuse container (*above the insulated pipe*) as the belt continues on to the cleaning section and drive section.

ucts, are flown in daily by jet plane. Seafood, netted alive from fresh water and salt water tanks in the food production area, are prepared to order. The emphasis is always upon quality—the best obtainable.

Food Facilities Design

Once the menu has been perfected, Restaurant Associates then goes about designing the kitchen equipment that will insure its proper production. The company has its own engineering department, headed up by George Arnold who was formerly with Nathan Straus-DuParquet.

Chef-Director Stockli and the chef scheduled to head up food production at the new restaurant work closely with Mr. Arnold, as do other members of the company's executive staff, to make certain that the equipment will produce the selected menu. For very special pieces of equipment, experts are called in to give advice.

When the basic layout has been established, discussed, improved, and re-established, Restaurant Associates is ready to approach equipment manufacturers and other suppliers. Then they follow-up the progress of the actual construction, checking to make certain that every detail is as specified and that the equipment performs as it should.

Importance of Advance Planning

To return to the matter of creating and carrying through basic design in relation to ultimate service, Restaurant Associates' foresight in engineering construction is worthy of note.

The Forum of the Twelve Caesars' menu includes many dishes that, to be authentic, must be flamed or served from chafing dishes. Aware of this added heat factor from the outset, Restaurant Associates designed an extra 10 percent capacity into The Forum's airconditioning system. They also took into consideration the possible fire hazard of such service and were careful to meet municipal and other safety laws.

Another instance of planning foresight is exemplified in the 20-square foot marble pool in the main dining area of The Four Seasons. This decorative pool of bubbling water, coruscating with light below water level, placed an extra dead load on the floor. The structural steel footing and columns going into the supporting floor had to be much stronger. This information had to be communicated very early to the architect, since supporting structural steel must be designed and ordered far in advance of letting the basic construction contracts.

Although The Four Seasons does not have background music for dining,* it does have a complete sound system and a complete arrangement for show lighting. These special features were installed to accommodate fashion shows and other displays. A room is equipped with 16 mm. and 35 mm. movie projectors and sound equipment as well as a full cinemascope screen. To keep the full-grown fig trees, the white birch trees, and other plants alive, special mercury-vapor lamps to replace sunshine were installed in the ceiling and are turned on between 1 a.m. and 7 a.m. All these factors had to be planned far in advance.

Still another example of advance planning is evident in the Tower Suite, the company's penthouse operation on the 48th floor of the new Time and Life Building. Part of the Tower Suite's theme is the magnificent New York panorama—skyscraper towers, rivers, harbors—viewed through full-length glass panels. So that patrons seated near the glass-panelled wall can preserve the illusion of viewing the city from a mountaintop, the glass panels, subject to high wind at such height, are separated by hand-blown multicolored glass disks, backed by mirrors set in the wall soffits. This arrangement had to be planned during building construction.

Merchandising the Product

The product that Restaurant Associates has so painstakingly researched, developed, and produced for each restaurant is merchandised with the same care and attention to detail. Their goal of "hostmanship" and a professional approach to restaurant service is realized through very intensive indoctrination, training, and working with the personnel chosen for a particular restaurant.

"You don't get people to do more just by giving them more money," Mr. Baum pointed out. "They must have great interest and professional pride in what they are doing. Developing our employees' knowledge and pride in their work is one of our greatest satisfactions. Through meetings and training sessions we instill in our people the feeling that they are part of the finest restaurant of its kind and that they are important to its success."

The company officials view the restaurant industry as a service profession, one in which their staff must be able to meet and serve people on their own cultural level. Restaurant Associates' employees really know the historical background of the restaurants in which they work and of the menu and its proper service. Creating the restaurant's personality does not stop with stagecraft. The cast knows and enjoys its role in the production.

Executives of the company hold briefing sessions with each restaurant's entire staff during the morning, thus developing the "family approach" toward better merchandising. In the afternoons, service personnel hold their own informal discussions concerning the menu, its service, and other details of operation. They take turns serving one another and checking upon techniques. Their suggestions are listened to by management and worthy ideas are adopted and employees rewarded.

Lectures are given by experts in various fields, such as wine service, and waiters take speech courses and the kitchen staff language courses. Each restaurant has a reference library of books dealing with the history, background culture, and menu served there. These books are read and discussed by employees and guests are encouraged to borrow them.

Managers, captains, and waiters make every attempt to know their patrons by name and to learn their food preferences so that guests feel they have all the personal attention of a private club. Restaurant Associates believes that waiters should be knowledgeable without being haughty or snobbish. Their fund of knowledge is used to add to the guests' enjoyment and to their own professional pride. The end result is to develop the personality of the entire operation and lead employees to work together harmoniously in producing the sought-for creation, a truly fine restaurant.

To sum up . . . the same ingredients are available to many cooks. It is how you put them together that makes your dish better than the next one. The same opportunity is open to all restaurateurs. It is what you make of this opportunity that creates the restaurant that becomes a modern classic.

* Background music is not included in the theme of The Four Seasons, The Forum, or The Tower Suite. Management's feeling is that music tends to increase a restaurant's "noise level" and detract attention from the perfection of the food and from conversation. La Fonda del Sol has live music from 8 p.m. until 1 a.m. in keeping with its Latin-American theme. For The Brasserie, the company has taped its own French music which is played at a very low sound level.

The Specialty Restaurant

Sheraton-Cleveland's *Kon Tiki*

The American public, now more widely traveled and more sophisticated in food tastes, likes a restaurant featuring national and exotic cuisines in an entertaining atmosphere.

By Stephen S. J. Hall, Cornell '56

The era of the specialty restaurant has become firmly embedded in the hotel industry of today. Usher out the stiff, formal dining room of yesteryear, once the trademark of hoteldom, and usher in a multitude of exciting and fascinating adventures in dining pleasure.

No more does fine food alone magnetize the populace. Today's traveling and dining patrons demand restaurants whose prime appeal is "atmosphere." Be it the ultimate in pomp and ceremony, be it sawdust on the floor, be it atop the highest building, the creation of a South Sea Island, or the re-creation of an historical tavern, the list continues, proving that today's truly successful restaurant is one offering an extra bit of atmosphere—something that removes one from his humdrum daily existence.

The Kon Tiki

The Sheraton Corporation of America, having realized, a few years ago, the tremendous need for specialty restaurants, has just completed perhaps the finest of its long list. Called the *Kon Tiki* and located at the Sheraton-Cleveland Hotel, this restaurant is the third such successful Polynesian venture of Sheraton Corporation and Stephen Crane Associates.

The 230-seat *Kon Tiki* consists of a series of intimate areas, each with a different "personality." These personalities, so to speak, are achieved

Fig. 1. **Kon Tiki's Layout**

1. Foyer
2. Tepe entrance
3. Bridges
4. Pools and waterfalls
5. Patio room
6. Aikane room
7. Bar
8. Passageway
9. Ceremonial area
10. Maori Long Hut
11. Luau garden
12. Luau room
13. Tama room
14. Alcove
15. Service area
16. Bar service area
17. Kitchen

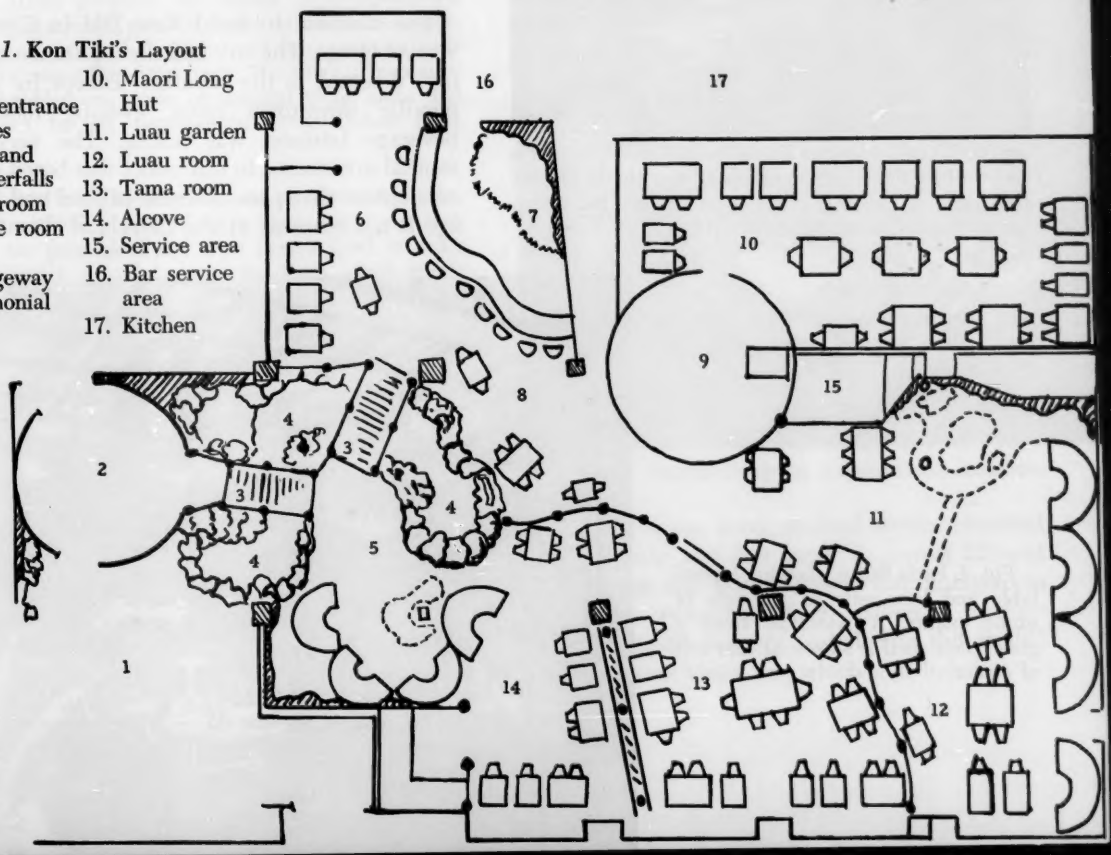


Fig. 2. Bridges over lava rock pools and waterfalls between the Tepe and Patio rooms have carved "totem" poles.

Fig. 3. The serpentine bar in the Aikane Room has a waterfall in the background. Note the thatched roof and blowfish hanging lamps over the bar, the rattan bar stools, and other decorative details.

through varying floor levels, room shapes, wall and ceiling covering materials, and the placement and types of various decorative weapons and statues.

These dining areas, though separated only by a railing or soapstone screen, convey the over-all impression of being part of a Polynesian village. Yet the low-lighting level throughout the entire restaurant conveys the feeling of individual privacy.

The ceiling and wall materials are authentic island materials, and full effort was given to eliminating conventional coverings, and to insuring that every square inch is completely decorated. Rain cape, hemp square, lahalla, pandana leaves, tappas, and rice mat are materials completely foreign to most contractors. Foreign also is the creation of seven imported lava rock pools and waterfalls, the coping and tying of bamboo and rattan, the hanging outriggers from the ceilings, and the mounting of huge tradachna shells and numerous weapons on the walls.

Despite the problems of non-familiarity, however, *Kon Tiki* was started in September, 1960 and by the end of the year was ready to open its doors. From its opening in early January, the *Kon Tiki* has done a capacity business every day of its operation, which includes luncheon Monday through Friday and dinner Monday through Saturday.

The decision to build *Kon Tiki* in Cleveland was a big one. The city had the reputation of having "deserted to the suburbs." Except for a few, popular downtown spots, evening food and beverage business was falling. The very substantial investment in this outlet was based on the assumption that poor business in food and beverage is not inherent in the Cleveland climate, but

Fig. 4. Patio Room, showing typical table and banquette in a jungle of exotic plants. A waterfall from a giant clam shell is shown at rear left of center.

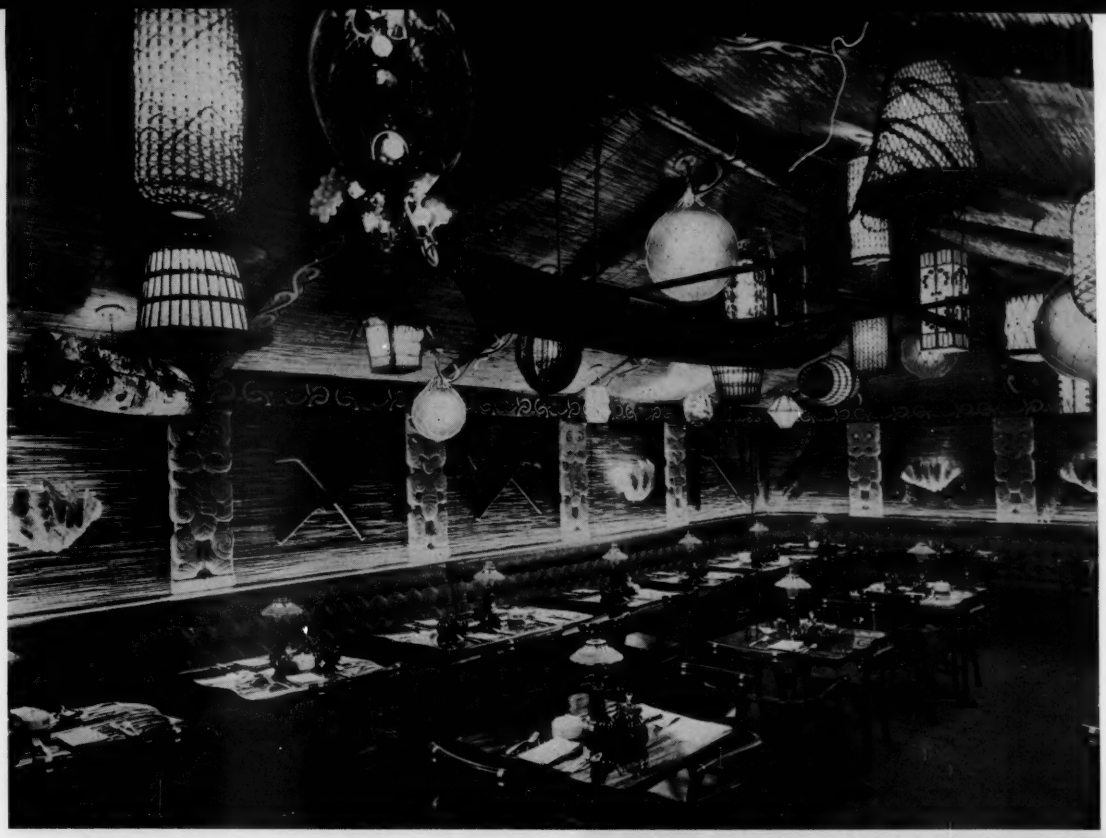


Fig. 5. The Maori Long Hut features a native outrigger canoe suspended from the ceiling. South Sea shells, Maori weapons and shields displayed on the split-bamboo walls give the room an authentic "meeting house" look. The upholstered banquette extends around three sides of the room. The small, irregularly-shaped tables are made of tropical wood slabs and they can be set together to accommodate large parties.

Fig. 6. Hors d'oeuvres (such as barbecued ribs, puffed prawns, broiled chicken livers, egg and crab rolls) are precooked and then french fried to order before being served in compotes from which guests help themselves. Note how the table appointments carry through the South Seas' theme.

Interior Design by Stephen Crane Associates

rather results from the lack of well-conceived specialty dining facilities. The management's faith in Cleveland has been rewarded in that—even if the *Kon Tiki's* initial novelty should wear off—present sales are running 67 percent over the projected pro forma.

Other Dining Areas

While observing the effects of *Kon Tiki* on the Sheraton-Cleveland Hotel, let us go one step further and include two other specialty rooms. Upon acquisition of the hotel, its food service consisted of the *Bronze and Rib Room* (a formal 323-seat dining room and bar), a less formal dining room (which has completely been redone to produce increased profit, but not included in this study) and a 122-seat Men's Bar, which is included.

The Bunch of Grapes

Sheraton's first step was to replace the Men's bar with *"The Bunch of Grapes,"* an accurate reproduction of an Old New England tavern; with pegged floors, fireplace, wood paneling, and certain well-placed pieces of appropriate as well as authentic antique furniture. Created in the same space as the former bar, *The Bunch of Grapes* returned 163% more gross than its predecessor.

The Falstaff Room

Next, the 111-seat *Falstaff Room* was built. Patterned after an Old English chop house, this open-grill, dropped-beam room was created in previously non-income space. It was built to provide the hotel with an American menu type, leisure service dining room to replace the *Bronze Room,* which was to be converted into the *Kon Tiki.* The *Falstaff Room* has one-third the seats, one-third the labor, and one-third the area of the *Bronze Room,* yet its gross is 70 percent as much.

The Proof is in the Profits

Then came *Kon Tiki,* whose sales are projected at 56 percent above the 323-seat room it replaced, and whose present sales are 182 percent above that same room. Thus, *The Bunch of Grapes,* the *Falstaff Room,* and the *Kon Tiki,* a total of 463 seats, have replaced the *Bronze Room* and *Men's Bar* which totaled 445 seats.

The gross income from these three new specialty rooms is more than double that of the rooms they replaced. And, of course, very important but difficult to calculate is the increase to room occupancy resulting from improved food service and increased "word of mouth" publicity. It is anticipated that this gross percentage will be even higher upon completion of a new 2,500 guest ballroom and exhibit hall currently under construction by Sheraton, adjacent to the hotel.

Through Sheraton's success with specialty restaurants, three points remain foremost in mind as guides to such a room:

- **Be authentic**—choose a theme and maintain it rigidly. You can't hope to "captivate" your customers if you distract them with a mixture of moods and decors.
- **Be thorough**—continue your basic theme throughout. Try to avoid letting your patron be lulled out of your intended atmosphere by areas which fail to approach the richness of the area as a whole.
- **Be confident**—it is extremely easy to lose faith once you have committed yourself to total creation of a theme. However, lack of confidence only tends to make you reconsider and skimp in your planning, thus you defeat yourself by losing sight of your ultimate goal.

One point cannot be overlooked: the American dining patron has come to know and appreciate quality. By providing him with quality, he will not desert you. But if you try to fool him, he will soon leave you. Whatever the effort to keep a satisfied customer, it is only a particle of that required to try regaining a dissatisfied one.

The publication of the theory of double-entry bookkeeping in 1494 had almost as great an impact upon the world as Columbus' discovery of America two years earlier. Up to that time the concept of "income" from a series of mercantile enterprises had been practically unknown.

Merchants kept separate journals to identify different kinds of enterprises but no attempt was made on a continuing basis to determine whether their overall transactions were profitable for a set period of time, such as a year or two. The "balance sheet" as we know it today had not yet been developed.

A Franciscan monk and mathematician, Fra Luca Pacioli (1445–1523) is given the credit for recording and classifying the systems used by Italian merchants of his day and presenting the basic approach to modern accounting in his *Summa Arithmetica.* It is held that his outline of the proper use of the journal and general ledger could be used, with only minor alterations, by today's bookkeepers.

Take the advice of the Quaker lady who ran a boarding house with no vacancies: "If thee wants to sell thy rooms thee must set a good table."

—Adrian Phillips

Two Daring Young Men on the Restaurant Trapeze!

In the midst of getting this issue to the printer, Lee Henry, a co-partner with Bill Sapp in Columbus' million dollar Kahiki, appeared by chartered plane in Statler Hall to recruit additional helpers for the booming Polynesian restaurant, opened February 20.

Eager to know how and why two men just past the thirty-year mark would risk their stake from a steak house, twenty hours a day of grueling work, and a substantial amount of other people's capital in so spectacular a venture, your editor turned inquiring reporter and put a few questions to Mr. Henry.

The Interview

Question: What was the hardest thing you had to do?

Mr. Henry: Learn how to build a Polynesian restaurant from the ground up.

Question: But a lot of these restaurants are going up all over the country. Why was it particularly hard for you?

Mr. Henry: Well, when my partner Bill Sapp and I first got the idea three or four years ago we didn't have the financial backing to go ahead. We couldn't go out and hire Stephen Crane and we had no offers to go into business with Trader Vic or Don the Beachcomber.

But we could dream. And so we researched madly, reading everything the explorers had written—in French and German as well as in English—about life as it once was in the South Seas (Polynesia is pretty worldly these days), about the people they found, the temples, their idols, the sociology. We also traveled all over the country, eating in Polynesian restaurants and talking with the operators who were quite friendly and helpful. We wrote about 1,400 letters to places like Hawaii, Japan, Hong Kong, the Philippines, and the South Sea Islands. And we drew on our memories of some of those same places we had visited. By the time we had our ideas pretty well firmed up we were able to secure financial backing.

Question: Was getting financial backing the next hardest thing you had to do?

Mr. Henry: No, actually building a Polynesian restaurant of the type we had in mind—a replica of the old New Guinea meeting house where the elders met. We wanted an authentic, truly unusual, and spectacular place and so we felt that we had to start from the ground up. We worked with three architects, an interior designer, and several builders coordinating their ideas with ours, to build *Kahiki*. Did you ever sort good bamboo from bad bamboo and then try to weave it together? *(We admitted that we hadn't.)*

We used laminated wood arches and planked wood decking for the main structure which has 15,000 square feet in each the basement and the

first floor and another 3,000 square feet in the balcony, our office area. We imported featherstone and coral rock and looked around and found a fellow who did sculpturing professionally and he made the temple idols that we use for symbols and decoration—monolithic figures thirty feet high like those found in the Easter Islands. We have flaming torches burning at night on top of their heads at the entrance.

Question: How did you happen to choose Columbus as the place to locate your restaurant? Most specialty restaurants of this type are located downtown in big cities where they can count on droves of people from everywhere who want to eat an authentic luau.

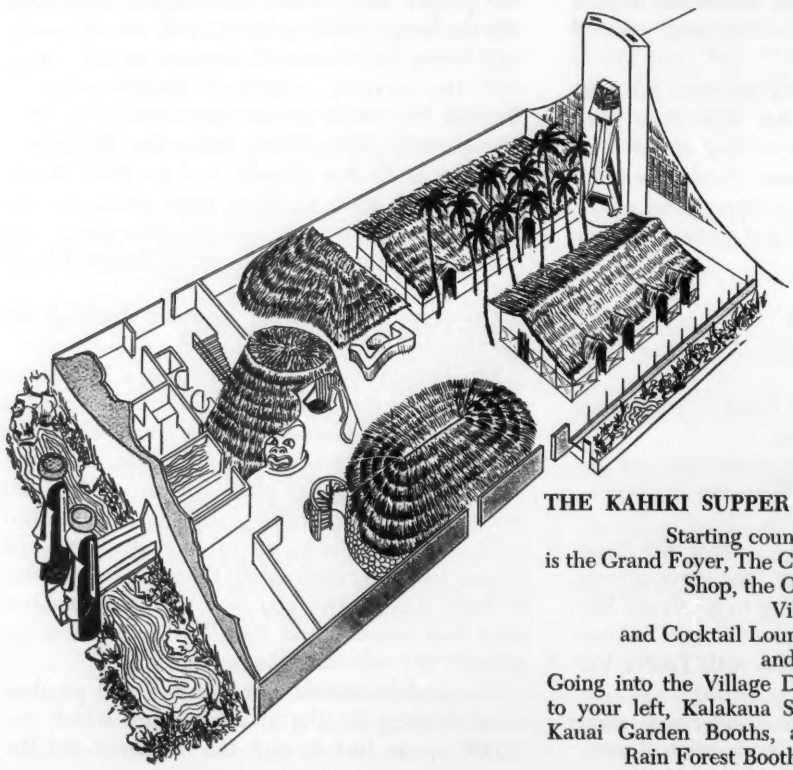
Mr. Henry: Well, to begin with, we were already *in* Columbus. And let me tell you that Columbus is a pretty good town in which to own a restaurant. For six years my partner and I have operated the Top Steak House in Columbus on Highway 40. This is a 90-seat restaurant—open only for dinner—with room for about 30 more in the bars and we've grossed $450,000 a year. Columbus is the fastest growing city east of the Mississippi—it has just pulled ahead of Cincinnati to become the second-largest in the state. Over one million people live within 25 miles of its center. Moreover, Columbus is the state's capital, the transportation hub, the center of the finished-good manufacturing area—

Question (interrupting this eulogy of hometown): Why did you build on the outskirts rather than downtown?

Mr. Henry: In the first place, we are open only for dinner—cocktails at 5 p.m., dinner orders from 6 to 1 a.m., and close at 2:30 a.m.—and the people aren't downtown then. Further, to get a desirable downtown site on which to build our structure we would have had to buy a lot with a building already on it at great expense, tear the building down, and then not have parking space that we could count on. As it is, we built *Kahiki* three-and-a-half miles out from downtown but on the main boulevard east and across from the largest shopping center in the country and near the biggest discount house with—

Question: How much land do you have?

Mr. Henry: Three acres. Our building is fairly compact—70 feet in width, 150 feet in length, and, with its high arches, about five stories high. We have plenty of room for parking—enough for 150 cars right now.



THE KAHIKI SUPPER CLUB AND ITS ROOMS

Starting counter-clockwise in the entrance is the Grand Foyer, The Cloak Room, the Beachcomber Shop, the Outrigger Bar, entrance to the Village Dining Room Maui Bar and Cocktail Lounge, access to the Rest Rooms and stairway to the party rooms. Going into the Village Dining Room, the Music Bar to your left, Kalakaua Street, the Molokai Hut, the Kauai Garden Booths, around to the Niihau Hut, Rain Forest Booths and back to the Music Bar.

Interior view showing the Village's "open air" dining area. Tables and booths are also housed within the thatch-roofed huts. Kitchen entrances flank both sides of the "fire god" and lead to a very efficient food preparation area. On the balcony back of the fire god are located the executive offices and conference rooms.

Question: How many people can you seat?

Mr. Henry: 250 in the dining room, 100 in three bars, and 250 in the banquet or party room on the ground level—600 total.

Question: What's the turnover?

Mr. Henry: At the moment, people take about an hour and a half after they are seated. Many have to wait in the bars and we've had to turn away droves. The trouble is that when people once get in they want to *live* there. They've never seen anything like it before in their lives.

At one end we have a huge idol with glistening eyes and a fireplace burning for a mouth. On the west side we have introduced an authentic "rain forest"—complete with jungle plants, birds, a stream with three waterfalls (we have seven in all), fish, and sound effects. We have a man full time just to look after the plants, birds, and fish. We have a "sun" in our lighting effects—illuminations is usually at a pretty low level—that rises and sets in a half-hour cycle. In the middle of the "day" we have a "tropical storm"—thunder, lightning, the illumination dims, a shower falls, the birds hide in the vegetation and grow still—then the "sun" comes out, the birds begin to twitter and all is serene.

Question: What's the take—the average check?

Mr. Henry: Around $6 per person—food, $4.20 to $4.50 and the rest from the bar. Polynesian food costs are low, about 38 percent, but labor costs are high, between 31 and 33 percent.

Question: Do you honor credit cards?

Mr. Henry: Yes, all of them—Am Ex, Diner's Club, Carte Blanche, and our own. About 30 percent of our business is by credit card.

Question: Why aren't you open for lunch?

Mr. Henry: We considered it, but the average check would be only about $2.50 and the turnover around one-and-a-half. We'd have to put on a second shift—our cosmopolitan crew doesn't want to work a split shift—and so it wouldn't pay off. We'd do better by expanding our party business.

Question: Why?

Mr. Henry: To begin with, we've already booked enough business to last an entire year, even though our party rooms are not opened yet. We plan to sell a packaged menu—everyone order the same thing in advance—and prepare it in a special kitchen. Then we'd like to build up the package—leis for the ladies, sword dancers, combo bands, and flaming specialties. Our party room seats 250 and we can divide it into any arrangement by using air panels. These are decorated panels—fishnet, spears, bamboo, seashells—with a panel at the top that can be inflated with an air bomb so that it clings solidly to the ceiling. We'll also promote special table arrangements, roast pigs, and anything else a group may desire.

Question: What type of food do you serve?

Mr. Henry (handing me a food menu and a drink menu, both the size of opened roadmaps): Cantonese principally—about 70 percent with the other 30 percent American food. Polynesian food covers a pretty broad range as the islands have been a crossroad of the seas: South Seas, Oriental, Indian curries, some French. Cantonese cooking is all cooked to order and takes very little time to prepare. The basic stocks and sauces are already simmering and the vegetables and fruits are pre-

cut and the meats sliced. We serve lots of flaming dishes and flaming drinks.

Mahi Mahi, a flaming fish dish is served wrapped in foil to look like a fish on a platter decorated with ti-leaves. We don't need tablecloths, salad plates, bread and butter plates—only forks and spoons with the platters. Our tables, made of highly polished monkey pod wood and cleaned with tea, have straw mats encased in rosin that makes them easy to clean. Our table appointments are often quite expensive—some cost $2.50 and $3, especially the glassware (we serve coffee in a glass held in a wicker basket). We try to hold down take-home-souvenirs by placing a small sign on the tables saying these things are on sale in our gift shop; sarongs on the waitresses too.

Question: What's your most exotic concoction?

Mr. Henry: That's hard to say. Probably our "mystery drink" that we serve after ten o'clock—a flaming concoction for four. It comes in a flaming bowl, the lights are lowered, a great gong is struck, and a sarong-clad waitress slithers in, first presenting the libation to the fire god and then presenting it with great ceremony to the customers at their table.

Question: Where did you recruit your help—in Columbus?

Mr. Henry: Most of our help had to be brought in, from New York, Chicago, and California, and we had to pay them more than they had been making to entice them to Columbus. We have 128 employees in all. And we found ourselves with a housing problem because of our varied nationalities and are now in the apartment business.

We have a good crew. Our manager, Hal Noguchi is an American-Japanese who speaks Japanese and finds his master's degree in psychology pretty essential in managing our polyglot personnel. Phil Chin, originally from Hong Kong but a graduate in engineering from Texas A. & M., is our chef—you should see him figuring food costs on a calculator or slide rule and then check them with an abacus. My partner was in pre-law and I in accounting, both with degrees from Ohio State.

Our cocktail waitresses are Japanese, our dining room waiters are Chinese (though we're adding some Filipinos who make very deft waiters), and many of our busboys and other workers are Hawaiian and Latin American. Setting up the waiters in teams makes for the best service, we find—one gets food from the kitchen, another drinks, they have a busboy, and all cover for one another. The biggest trouble is communication—they don't speak the same languages. Our employees' restrooms are labeled in English, Japanese, Chinese, Spanish, and Hawaiian.

Question: How about the kitchen workers?

Mr. Henry: Our kitchen staff is principally Chinese and half of them don't speak English. Much of our kitchen equipment and supplies also comes from Hong Kong and is billed in Chinese. The chef has to interpret the bills for me. Chinese cookery involves many boiling pots but also grilling and roasting. We use a Radarange for thawing, baking potatoes, starting lobster tails, and the like. We also have installed the Chinese-style roasters that their cooks favor for roasting an entire pork loin. We have a charcoal-type broiler and also a new type of broiler made by the South Bend Co. that utilizes ceramic tiles—the tiles focus and hold the heat like infra-ray and cut broiling time in half.

Question: Why are you interested in hiring a Cornell boy?

Mr. Henry: There must be something they learn in four years of hotel school that we don't now have. We hope to get someone to help us achieve greater efficiency and later take on the party service. We want to round out our crew, particularly before we expand.

Question: You talk about expanding. How are you making out now?

Mr. Henry: Pretty well we think, although we have been open just five weeks. At our present operating level, we should easily gross $1.5 million this year and when we get our party room going the figure should be $2 million easily.

Question: How did you get the financial backing?

Mr. Henry: Well, I don't think I should go into that too deeply as it would violate some confidences. Suppose I just tell you how it might be done if the partners already had a good chunk of operating capital, and you need plenty, I assure you.

To construct and make ready for operation a restaurant club such as the *Kahiki*, you need at least a million dollars. Financing might be arranged as follows: $300,000 in short-term loans, say for three years, and the other $700,000 in ten-year loans.

Now let's say that you gross $2 million and make a profit of 10 percent or $200,000. If you have no leverage, $175,000 of that profit—52 percent corporation tax after the first $25,000—would

be subject to tax and your share would be about $84,000.

But a million dollars borrowed at 5 percent creates an interest obligation of $50,000 a year. Polynesian restaurants have a fast write-off, say 10 percent or $100,000 a year which equates with the $100,000 a year you plan to pay back on the $300,000 borrowed on a three-year loan. Deducting the $50,000 interest and the $100,000 depreciation, you would have left $50,000 profit of which only $25,000 would be subject to the 52 percent tax.

Question (somewhat dizzy after this high-finance): What do you do when the depreciation is used up on the things to which it applies? You can't depreciate your real estate—that probably will rise in value—and then your structure...

Mr. Henry: We'll probably sell and lease back. Most buyers of such property are looking chiefly for a good return on their investment. They don't want to operate the restaurant—they want you to operate it. We'll use the cash, if we follow this practice, and build another *Kahiki*.

Question: Where?

Mr. Henry: Probably in Texas. We use so much gas in our huge open air torches—our guests drive up an avenue of flaring torches before they park and cross a bridge over a moat to reach the entrance which has more gas flares on the huge idols—that we think it would be cheaper in the future to build a *Kahiki* close to the gas supply.

Six Specialty Restaurants in One

Granted that specialty restaurants with exotic decors and menus do bring in new patronage, the small city operator still faces the fact that he has a limited market upon which to draw. Even in large cities, diners-out patronize a Polynesian room or a Little Bit of Venice only once a month—or perhaps even once a week—but these operators' wide markets keep them in business.

Yet the small city restaurateur's problems are not beyond solution, C. DeWitt Coffman, vice president of the Futterman Corporation in New York recently told a Cornell class in sales management. He might consider the example of The Nations—a restaurant soon to be opened in a $6,500,000 motel, The Golden Triangle, his company is constructing in Norfolk, Virginia.

The Nations is being designed so that it can readily be transformed into *six different specialty rooms*—each with different decor, lighting, table appointments and service uniforms. Morris Lapidus, the architect and interior designer for the motel and restaurant, is utilizing very clever stagecraft to key the decor to the different national menus.

The six menus to be offered include: Sundays (and also Thursdays), Polynesian decor and food; Mondays, Italian; Tuesdays, South American; Wednesdays, English (featuring roast beef); Fridays, seafood; and Saturdays, French. And, Mr. Coffman noted, the management hasn't yet taken advantage of Hofbrau or Oriental cooking in The Nations' menu offerings. Swedish food, he said, will be served in a smorgasbord offered in another food operation of The Golden Triangle—The Satellite Coffee House—from 2 p.m. until closing time.

The basic change in decor will be obtained through eight reversible wall panels with red velvet drapes on one side and white-flock designed wallpaper on the other. (The remaining walls are set with glass panels.) Pull-up roller scenery will be attached to this combination of panels to depict scenes that provide a suitable backdrop for the menu—South Seas, Italy, South American Indians, London, and Chesapeake Bay. For the English menu, the red draped panels will be used to frame a London scene. And for the French menu, advantage will be taken of the attractive wallpaper panels.

The lighting will be controlled and changed to complement the motif through ceiling and wall installations as well as through table lighting, Mr. Coffman continued. The tabletops will be reversible—formica-topped on one side for the Polynesian menu and padded on the other for tablecloths. Red-and-white checked tablecloths will be used for the Italian and seafood menus and plain white linen cloths for the South American, English, and French menus. The service uniforms are a matter of proper costuming, ranging from formal-type dress to sarongs, leis, and mu-mus. The music will also be selected to develop the decorative theme.

Good basic design, an attentive eye to detail, and a chef who has the spirit of adventure are necessary ingredients for this type of merchandising, Mr. Coffman concluded. Five specialties are to be featured on each of the national menus and an a la carte menu will be used to list familiar American favorites, such as steaks and hamburgers.

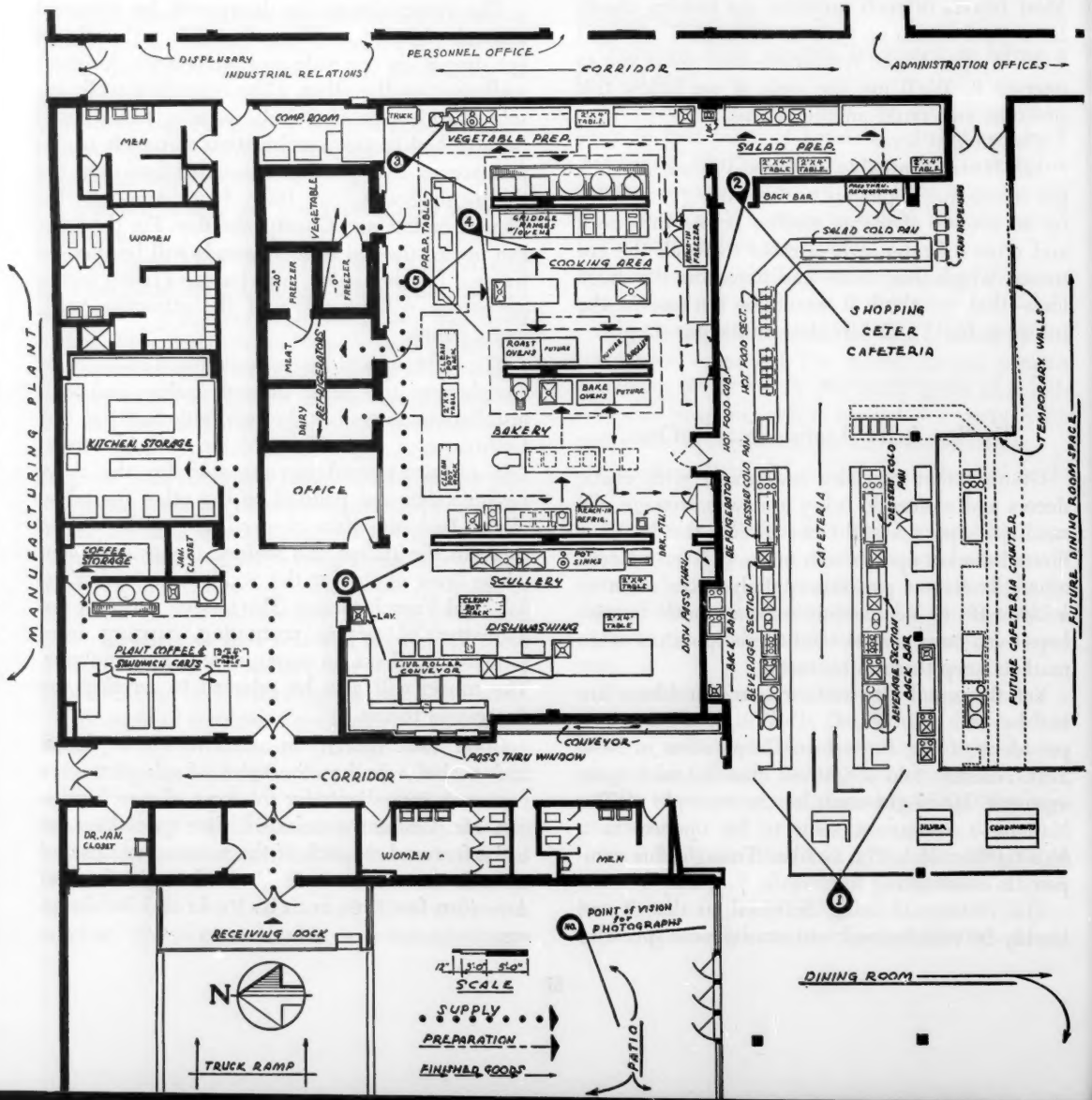
Modern Food Service Design and Equipment

The Royal-McBee Typewriter Plant
Springfield, Missouri

Food Service Consultant
Stephens-Bangs Associates, Inc.
Detroit, Michigan

Architect
Giffels & Rossetti
Detroit, Michigan

The floor layout shown below for a cafeteria and food facility was designed and engineered to serve from 1,500 to 2,000 employees of the Royal-McBee Typewriter Plant in Springfield, Missouri. The plant is expected to increase production until the employees number 3,000 or more. With a thorough knowledge of the menu, the number of people to be served, and the type of service required, the consultants and the architects planned and engineered a food service facility to do the job intended.



A special feature required the design and fabrication of four portable food bars for conveying hot and cold beverages, sandwiches, soups, and desserts to the plant area. A special area was planned for storing, cleaning, and restocking these portable bars and an adjacent storeroom provided for candies, cigarettes, and sundry items merchandised from the bars.

The cafeteria and dining facilities, planned to accommodate about 70 percent of the plant population in staggered 30-minute lunch periods, utilizes a shopping-center type of cafeteria service. In the preliminary planning as well as through the final stages of engineering, an additional counter was designed and planned for future installation in the area to the right of the floor plan, and additional food preparation equipment were included in the plans to support this expansion.

Note the direct flow of supplies from the receiving dock to the storage areas; from the storage areas to the preparation and cooking areas; from these areas directly to each department in the serving counters. Observe the ample supply of two feet by four feet portable tables that may be used to convey raw produce from the storage areas and parked convenient to the preparation table where a worker may progressively utilize these items in the process of preparation and then place them up on another portable table which could be parked to his immediate right on which these prepared items could be conveyed to the various items of the cooking equipment for further processing and cooking. Also note the wide aisles where these work islands can be arranged. The office is in the direct center for a close supervision of all procedures.

The corridor arrangements are planned in such a manner that employees will enter via the upper corridor and exit via the lower corridor. All employees will bus their own trays. A tray conveyor is conveniently arranged where these trays may be placed at the exit to the plant.

In programing an industrial food facility it is necessary to establish the following basic points:

1. Decide upon the type of food service for this kind of plant.
2. Plan the menu considering quality, extent and pricing.
3. Following are basic factors due much consideration:
   a. Consider the plant area
   b. Consider the distribution of employees throughout the plant area
   c. Total number of employees on each shift to be served
   d. Total number of meals to be prepared and served on each shift
   e. Length and number of meal periods
   f. Are the employees to be served men or women or a combination of both?
   g. Is this facility to be company operated or run by a food service managerial organization?

The floor layout is keyed with Nos. 1-6 to the six photographs showing the equipment installations. Explanations for each of these six photographs are given in detail to provide a full description of modern food service and labor-saving devices utilized.

Photograph No. 1 was taken near the end of the serving area by the auxiliary cashier's stand. This is a shopping-center type of cafeteria service. Note the wide aisle which will enable one patron to pass another or to go over to the opposite counter, thus to minimize the problem of standing in line. Paying the cashier is usually a bottleneck in any kind of cafeteria service. With the wide aisle for passing and the auxiliary cashier, this cafeteria system can serve up to 30 percent more people than the conventional type of straightline cafeteria with one cashier.

This serving area is well lighted and ventilated. Observe the vent grills in the wall behind the left serving counter. Air from this area is exhausted out through the kitchen where an abundance of air is needed for the kitchen ventilation. The concrete floor is covered with a good color of vinyl. The dining room and serving area has a dropped, acoustical ceiling to cover the ventilation ducts, the top side of light fixtures and the fire extinguisher piping systems. The permanent wall between the kitchen and the serving area is built of glazed structural tile laid in a stack bond to get away from an institutional decor.

The serving counters are fabricated of stainless steel with formica fronts. The space under the cafeteria-tray slide is enclosed with removable formica panels. This space is used for a utility line enclosure. The two counters in the foreground are for the service of desserts and beverages.

Photograph No. 2 is taken from the opposite end of the serving area from behind the hot food counter. From here you can see out into one end of the dining room. There are two hot food stations with an extra wide space in front of the counter for queueing. Note the hot food pass-through cabinet (*to the left*) with the pass window above it through which hot foods and utensils may be passed. An automatic bread dispenser is mounted on the heated compartment where hot rolls and muffins may be served.

The menu board is mounted on the wall behind the counter. The counter and all other facilities were designed and fabricated for maximum cleaning and sanitation.

Photograph No. 3 shows the extreme end of the kitchen where a part of the vegetable and salad preparation areas are located along the wall with the steam cooking battery across the work aisle.

All equipment is mounted upon chair-carriers and suspended from the walls. All wall-hung equipment was designed to be mounted a minimum of three inches from all walls. The floors are constructed from quarry tile; the walls are built of glazed structural tile with splayed bases and the ceilings of aluminum, acoustical, removable panels. Note the hose station mounted on the wall across the aisle from the steam kettles. The end of the hose is fitted with a trigger-action fine, or needle-spray, valve.

As the kitchen is built of and equipped with tile and stainless steel, every inch of work area including the walls and floors may be washed down with 180° hot water. Observe also the drain trough that runs parallel in front of the steam equipment battery. This drain trough is constructed level with the floor and equipped with ample 3-inch drains that are fitted with strainer baskets, thus affording ample drainage for the stainless steel drip pan under the equipment and all adjacent areas. All faucets are equipped with individual and integral stop valves to afford easy and convenient repair, without affecting any other water lines in the overall kitchen.

Photograph No. 4 is taken of the view across the cook's tables with the roast oven and broiler in the background. Note the space between the broiler and the roast oven where future equipment may be installed. The cook's tables are fabricated all of stainless steel and mounted upon stainless steel stanchions, thus minimizing the number of lakes or bases to be cleaned around. The table top is constructed with raised rolled-rim edges and bullnose corners. The sink insets are all fabricated with coved corners.

Photograph No. 5 illustrates the roast, broil and fry cooking areas. Observe the very wide aisles, purposely planned with sufficient space to park portable equipment, such as food processing equipment, portable racks, and the indispensable 24″ by 48″ portable table. By properly arranging these portable facilities around the cook or kitchen employees, highly efficient work islands are created. In this case the cook or kitchen employee becomes the "island."

Raw produce may be conveyed from the refrigerators or other storage areas to the work area. Then this raw produce may be worked up from the portable cart or table over the stationary work table to another conveniently parked portable table. From here the prepared produce may be conveyed to the roast oven, or the broiler, or the fry station, or the steam cooking battery for further preparation. After cooking, the finished menu items may be placed directly into the serving pans and conveyed to the serving counter via the pass window, the hot food warming cabinet or directly to the counter on the portable table.

These wide aisles would be most inconvenient in a commercial type operation. A wide aisle would cause the cook to walk miles in the course of a working day. The proper dimension between ranges and cook's table for a commercial operation should be a minimum of 36″ and a maximum of 42″.

In this operation there is ample ventilation throughout the kitchen area due to the air brought in via ventilation ducts in the ceiling and the additional air from the serving areas. The two ventilators over the cooking batteries remove air in enough volume to afford a 2-minute air change or a complete change of air every 30 minutes. This is vitally necessary to remove steam, hot air, and cooking fumes.

Photograph No. 6, affords a good view of the overall dish washing and scullery areas. This room is well lighted and ventilated. The floors are constructed of quarry tile, the walls of glazed structural tile with splayed bases, and the ceilings of aluminum acoustical panels. The acoustical panels may be removed within seconds for maintenance of ducts and other facilities above the ceiling.

Soiled pots and pans are conveyed to this area by the use of the two-by-four portable tables. Note the pot sink is suspended from the wall by the use of chair-carriers. This pot sink is a right-to-left operation, where the clean pots and pans are to be stored upon portable pot racks and conveyed back to the kitchen for convenient use. The patrons soiled tray and dishes are brought into this area via a tray conveyor. The dishes are scrapped and racked over portable bridges. The dish rack filled with soiled dishes may be placed upon the live roller conveyor which will carry the racks directly into the dish washer without further effort.

Note the over shelf above the soiled dish table for the convenience of racking cups and glasses. The pass through windows behind the soiled dish table are for auxiliary use in case of mechanical trouble with the tray conveyor.

There are ample floor drains for washing down the entire room. Observe the two grease traps in the middle of room that are installed flush with the floor. Locating the grease traps in the middle of the room affords convenient access for cleaning without crawling back under tables, etc. Ample room is provided for parking dish rack trucks and carts as well as portable plate and cup dispensers. This factor is often overlooked in preliminary planning.

The Gourmet Food Operation

by Harry R. Friedman
Food Service Consultant

The floor plan for a highly successful European restaurant is set forth in this article in considerable detail by Harry R. Friedman, who maintains consulting offices in Miami Beach, Florida, and Zurich, Switzerland.

The reader will be interested in Mr. Friedman's adept, functional arrangement of the entrance, with its revolving display cases; the guests' waiting area, toilet facilities, the circular bar, and the many opportunities for display and showmanship. The "display kitchen" with unsightly cooking activities screened from view by a 42-inch display counter provides an opportunity for staff showmanship. The clangor and din of dish handling and ware washing is blocked off into a separate room conveniently adjacent to the display kitchen.

Above the display kitchen is a second-floor cooking area for space-consuming parts of the operation—bakery, employees' dressing rooms, storage, and a sizable managerial office.

The article which follows is keyed with supernumerals 1–86 to the layout shown on the folded insert.

—The Editor

Floor Plan for a Gourmet Restaurant

The floor plan of a gourmet operation that features the dramatic uses of European flairs and talent in an extremely economical but highly profitable organization is set forth in this article. Although one might, at first glance, wonder how economy and profit-making can be combined in a gourmet operation, the interpretation is apparent once the thinking behind the plans is understood.

Above the floor plan to the right is an artist's rendering of the dining area, as the guests come in the entrance. But the guest's anticipation of delightful food and atmosphere is heightened before he even sets foot in the door. Alighting from the parking area, in clement weather he sees the landscaped, partially screened dining patio in front of the restaurant.

The Entrance

Approaching the entry way,[1] the guests' attention is immediately arrested by two striking, revolving display cases [2] built into the structure on either side of the door. These displays can readily be changed with the season. Fine champagne and wines are featured in the display case to the right. The case to the left is refrigerated and therefore can be used to display elegant pastries, superb cuts of meat, sea foods, game as well as seasonal specialties.

The entrance leads to a luxuriously appointed waiting room [3] which is inviting and pleasant for waiting guests. The maitre d's desk [4] is so located that he can see and greet all guests as they enter and take care of their seating arrangements expeditiously.

Powder Room and Cocktail Bar

To the right of the waiting area is the ladies' powder room with toilet facilities,[5] a luxurious, beautiful "salon" for them to pat a curl into place or to apply first-aid to make-up before dining.

The men's room [6] is located to the extreme rear of the entrance and behind the circular bar. To get to this area, men pass around the bar. This location experience has proved, down through the years, is a profit-builder for those utilizing this arrangement. Many men who entertain (or those who accompany others to dinner) are non-drinkers. For imbibers, that excuse to go to the washroom serves a dual purpose . . . what an excuse for a "quickie" and a "pick-me-up"!

THE DESIGN FOR

A Gourmet Restaurant

HARRY R. FRIEDMAN

Design and Food Service Equipment Consultant

651 – 86th STREET MIAMI BEACH, FLORIDA

A GOURMET RESTAURANT

Designed by Harry R. Friedman, I.S.F.C.

This gourmet-type restaurant, seating about 300, features a continental cuisine and utilizes food merchandising to the fullest degree.

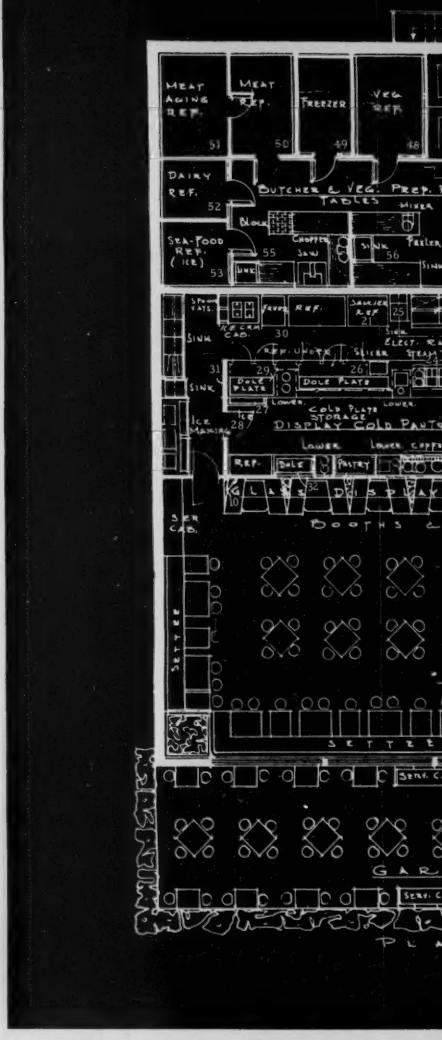
Patrons who enter the restaurant first pass by two revolving display cases of meats and wines and then by an artistic live lobster aquarium before they are seated. The circular bar is discreetly on view from the entry way and beyond the bar is a wine display cabinet.

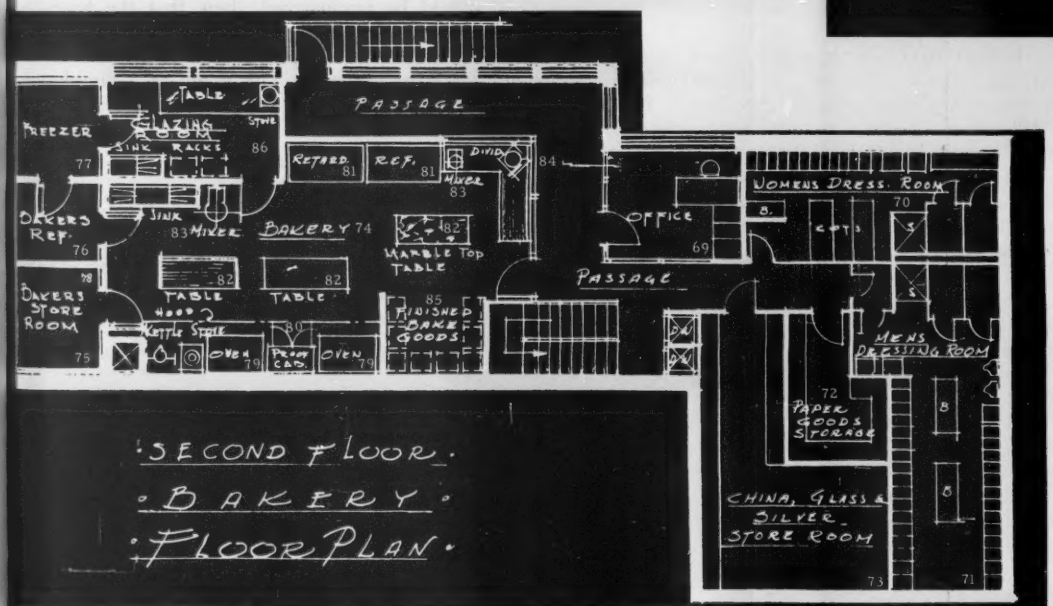
From the dining area, the handsome, compact, all-electric kitchen is continuously on display through attractive glass panels set above the back row of booths. Kitchen workers, seen performing at shoulder level, help to dramatize the food service. A warm touch of color is added to the guests' kitchen view by the full-length copper hood extending over the entire range bank at the rear.

The kitchen, laid out to emphasize automation, features conveyor systems, lowerators, finger-tip access to refrigerators, and Magic Carpet doors. The floor over the kitchen (*see below*) provides space for the bakery, the manager's office, the employees' facilities, and also for paper, china, and glassware storage.

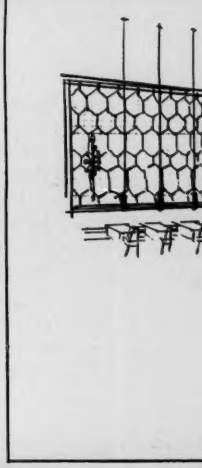
The dining terrace, screened by shrubbery from the parking area in front of the restaurant, can be entered from the street.

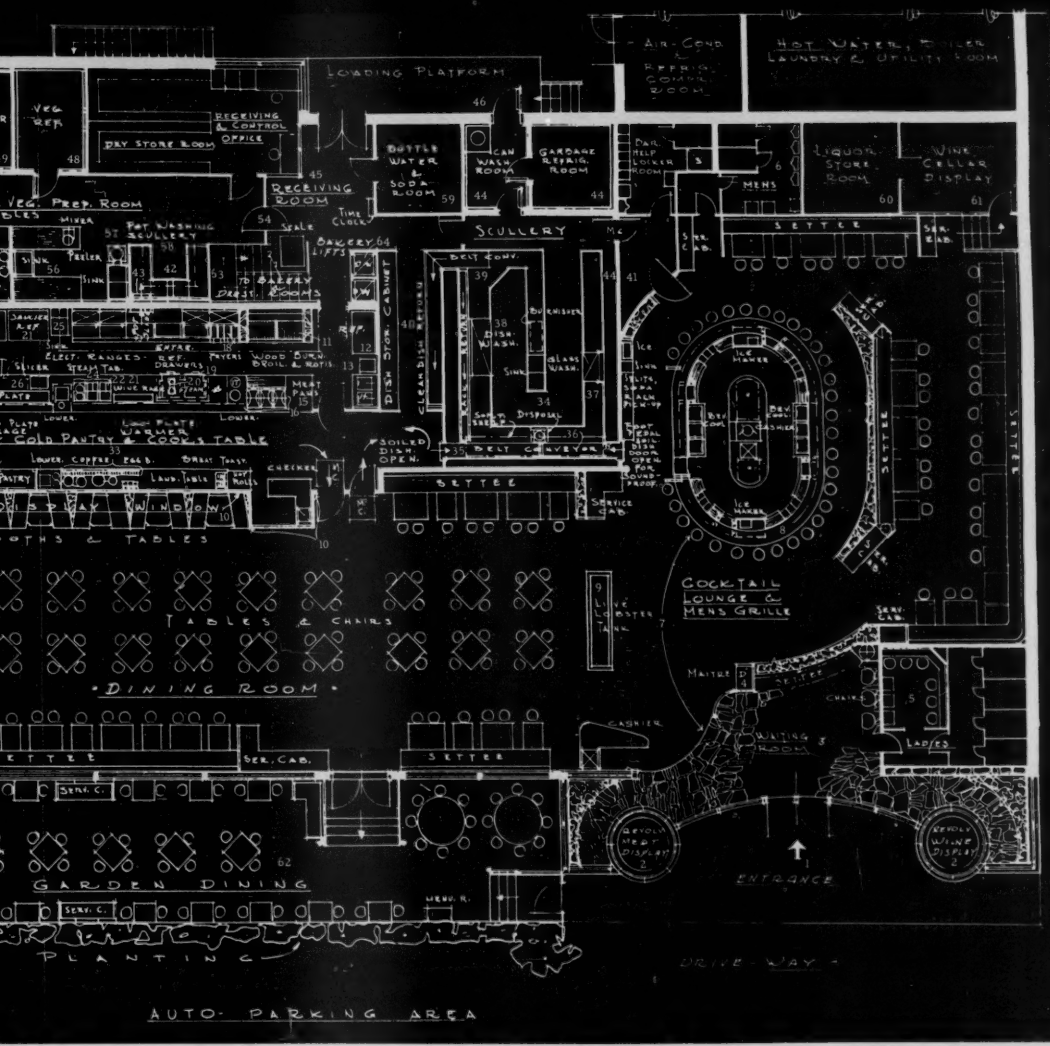
To help the reader follow the details of Mr. Friedman's design, the main floor layout (to the right) is keyed by Nos. 1–68 with super-numerals set in the article. The second floor plan (shown below in larger scale than the main floor) is also keyed to the discussion with Nos. 69–86.

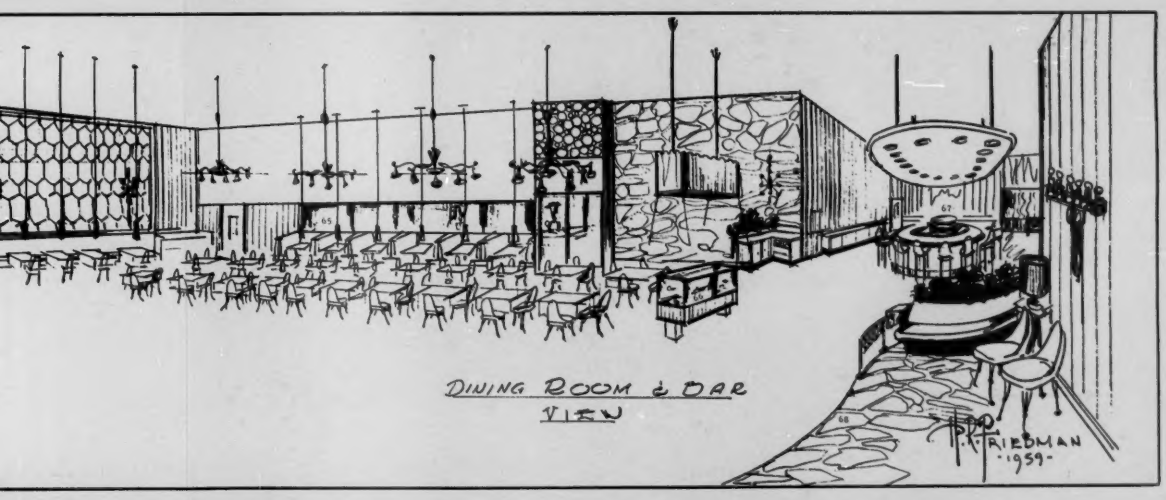




SECOND FLOOR
BAKERY
FLOOR PLAN







DINING ROOM & BAR VIEW

P.K. FRIEDMAN -1959-

A Word with Harry Friedman

When a client comes into my office to ask for help, the first question I ask him is "What type of operation do you have in mind?"

The reply, in substance, is usually "Well, you know what it ought to be and what I ought to have."

Since I don't have a crystal ball, there is no way for me to know what he has in mind until he supplies a few more details. So next I inquire "What type of menu do you plan to offer?"

And he cries out "How do I know when I haven't even built the place yet!"

To help him solve these basic problems I have gathered a wide assortment of menus from all parts of the world. This enables me to sit down with a client in either my Miami Beach or Switzerland studio and help the client work out the general format of what he really plans to do.

First, he must determine whether he is going to construct a gourmet operation or an inexpensive coffee shop. It is also necessary to know exactly what specialties he plans to offer. Then, by checking through my files of menus and food service planning ideas, we can set up the basic standards required to fit the client's specific operation needs. Whatever the type of operation—hotel, motel, specialty restaurant or such—we then try to weave in the intrinsic talents of the particular client or of his culinary staff in order to create a highly individualized concept.

It should be emphasized, then, that the type of operation and the menu must be precisely defined before anything else can be attempted in food facilities planning. The menu is a simple contract between the restaurateur and the guest that determines:

- Who your customers are
- What foods you should serve
- What equipment is needed to prepare these foods
- The method and style in which the food should be served
- The atmosphere needed to dramatize the meal
- What dishwashing setup is needed to keep things humming
- And all other pertinent related details connected with operating a successful establishment.

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Another interesting aspect of this plan is that the arrangement [7] separating the cocktail bar from the main dining area makes the restaurant attractive to the family trade. Many patrons hesitate to bring youngsters into a place with a conspicuous bar. The bar in this layout is far enough out of proximity to escape notice.

This circular bar [8] is a highly profitable one that has many advantages over the usual, less-interesting wall-types. Such an arrangement attracts patrons because they naturally like to see who else is sitting at the bar. Moreover fewer employees are needed to serve the many patrons who can be seated around a circular bar.

Seafood Display Tank

Between the cocktail bar and the main dining area you will find a lobster tank [9] where live seafood and lobsters add to the prestige of fine cuisine and service. An additional feature found in the design of this particular live tank is that lobsters can be numbered according to size and guests can thus select their lobsters by number. An idea often capitalized upon is to permit guests to net their own seafood and then have the captain take their "catch" into the kitchen.

Display Kitchen

An unusual interest point in this layout is the display kitchen,[10] where the restaurateur displays his entire culinary staff. Not only does this display provide another dramatic point of interest to guests, but it is also well planned from another standpoint: the management can get much more work out of help who are under constant observation than from those who work behind the scenes, hidden from public view. Moreover, this public contact tends to build up employees' morale and creates in them a greater pride in efficient workmanship.

In planning such a display kitchen, one must be careful that the equipment is built no less than 42-inches tall. While this 42-inch counter provides an unobstructed view into the kitchen from the dining area, it is high enough to prevent the patrons from seeing the actual workings on the cooks' pantry counters. It isn't good showmanship or display for guests to see a wiping cloth in use. Certainly, it is preferable to see the staff working at shoulder level.

Kitchen Equipment

Properly planned equipment, placed within fingertip reach, enables the kitchen staff to work speedily without lost time or motion. For example, let's take the rotisserier or "broiling" chef as an illustration.

For the real "European effect" we have the wood-burning broiler,[11] rotisserier—or the char-broiler which gives the same effect. Close to this section—just a step from the broiler—is the reach-in refrigerator,[12] the sink section,[13] the seafood chest [14] for lobsters or other seafoods and, of course, the necessary meat pans at the steam-table [15] for the carving of meats.

A landing section is provided for the hotplate pickup by waiters. Overhead infra-red heat units [16] are properly arranged to keep plates hot until picked up. Also, at this station are ample lowerators [17] where plates are available as needed. This unit is heated so that hot steaks may be placed on heated plates.

Immediately adjacent to the broiler is the fry station.[18] Beside these fryers we have the entremetier's station [19] where ample refrigerators and freezers hold all necessary vegetables, instantly ready as needed. The frozen vegetables are prepared in small individual steamer units.[20]

Following the entremetier's station we have the saucier's stations,[21] where again, all the required ingredients for his sauces and garnishes are within reach of his fingertips. Such items as the necessary bain marie for sauces,[22] a small lock-up refrigerator for wines,[23] and steam table inserts for some of the pre-prepared vegetables together with necessary ranges [24] are also provided.

Next to the refrigerator [21] for the saucier to keep his stock of sauces is his sink section [25].

Adjoining the saucier section is the cold pantry and salad counter.[26] The required cold pans and ice bins [27] for waiter service are at the far left as is the supreme service. This arrangement makes it easy for the waiter to pick up his shrimp cocktail on a peg-liner, scoop up the ice in the lower bowl and then apply his ring for immediate service,[28] thus saving him footsteps. He doesn't have to go all over the kitchen looking for the necessary items. He can also make up all of his cool items, such as juices, etc.[29]

Beyond the cold pantry section at the left end is the gardemanger [30] who prepares hors d'oeuvres and canapes. You will note in this plan, that no matter where "roughage" is done, the view is partitioned off [31] so guests cannot see it through the open glass display window.[32]

Coffee, tea, and beverage making [33] is located in front at the display counter.

Dishwashing Pantry

The dishwashing pantry,[34] located at the right of the display kitchen makes it easy to bring in soiled ware. A soundproof foot pedal opening [35] lands the ware on a conveyor belt [36] where it may be sorted and then put into the respective glass [37] and dishwashing pantries.[38]

After the clean ware leaves the dishwashing machine it is then transported on a belt conveyor into the clean dish pantry,[39] where it is then placed on mobile storage units.[40] The same is true for the glassware.[41]

Note, in particular, how we've removed the pot-washing area from our display kitchen (along with our glass and dishwashing) in order that the diners will not see the scullery help at work. The soiled pot problem is handled in this manner: when the cook wishes to have a soiled pan cleaned, he merely places it through a sliding panel door behind the range.[43] When the cook needs a new pot, the pot washer can easily return one through the same opening.

In the scullery areas (as you will carefully observe on this plan) are located a separate garbage refrigerator room and also garbage can washing and drying rooms.[44] This arrangement prevents the garbage man from entering the kitchen. Once garbage is emptied, the cans go to the can washing room [44] after which they are placed on racks for drying. This layout gives a complete, controllable scullery that is sanitary.

Receiving and Storage

Budget-wise, you will note that this plan provides for a centralized inventory control system [45] at the rear. Note how all merchandise is received at the rear of this building and all foodstuffs are unloaded on a rear platform.[46] Here supplies are brought into a receiving room where everything is carefully checked and weighed before being placed in the dry storage rooms,[47] the vegetable rooms,[48] the freezer,[49] the meat refrigerator,[50] the meat aging refrigerator,[51] the dairy [52] or seafood boxes.[53]

You will note the single door [54] to these supply rooms which enables the receiving control office to have full command of all merchandise going in or out of the area. This arrangement makes it easy for all foods to be doled out only on requisition, without which inventory control cannot be maintained.

Preparation Area

Behind the receiving control office are the butcher shop [55] and the vegetable preparation areas.[56] All meats are prepared, trimmed, and cared for before being packaged to fit into the inventory program. All raw vegetables are prepared on the same basis also.[57]

. Our reason for putting the potwasher [58] adjacent to this area is to enable the scullery help to assist in the preparation of raw vegetables. Facing the receiving control office is the soda room [54] and bottle room (which is used in most European type of operations).

Wine Merchandising

Off the cocktail bar at the right of the dining area is the liquor storeroom [60] and wine cellar.[61] A wine merchandising plan is carried out in this restaurant that increases the sale of wines, especially to Americans. As you know, the typical American is not given to wine consumption. But with the wine cellar in this location a trained wine steward can create a demand for his stock.

The procedure is for the wine steward to approach the waiter who has taken the guests' orders. Then, after learning what they intend to have for dinner, he approaches them courteously and asks —or perhaps suggests—certain vintages to go with the meal. Because most Americans have been given to drinking manhattans, dry martinis, and other drinks with which they are more familiar, many are not even vaguely familiar with fine wines. The wine steward, therefore, can make good use of his "cellar" by inviting the guest to accompany him to it. As they go over the selection on display, the wine steward gives bits of history about some of the wines in his collection.

He might ask, perhaps, if the guest looking over the display would like to taste some of the wines. Treating him with the same courtesy afforded a gourmet, the wine steward hands the guest a little silver drinking cup. Then the steward explains that a similar tasting cup has been used by wine merchants since time immemorial.

The simplicity of this treatment appeals to the guest, who is also keenly interested to know that the silver cup shows the clearness of the wines and that he is tasting his wine in the professional manner of the true connoisseur or gourmet. This idea usually appeals so much to the American wine cellar guest that 95 percent of them order wines.

Movenpick in Zurich

This incident of wine merchandising brings to mind one of my European clients, Mr. Ueli Prager. When a party arrives at his world-famous Movenpick restaurant in Zurich, Switzerland, they are met by the maitre d' who inquires whether or not they have reservations. Whichever the case may be, Mr. Prager sees that every guest receives the same cordial treatment. He even goes so far as to have his maitre d' ask the host the names of everyone in the party – and soon they will be pleasantly surprised by special V.I.P. treatment.

Then, a small table plan is shown to the host of the dinner party. The host, with the help of the maitre d', arranges the seating of his guests. The maitre d' also asks the host if he is to be presented with the bill so that there will be no embarrassment after dinner. All these arrangements are carried through quietly in a smooth manner.

The party is next asked if they would care to be seated in the waiting lounge until their table is ready. When they are seated, a bottle of table wine is presented to them "on the house." Naturally this gesture impresses everyone and the dinner party host is well pleased, in fact delighted, that he has brought his party to such a genial place.

The bottle of wine actually costs the house about 65 cents. Through this modest investment in his patrons, Mr. Prager's guests are "sold" on his operation. They freely buy scotch and sodas and other drinks at their own expense. But the greatest surprise is when their table is ready . . .

As the captain steps up to announce that their table is prepared, he calls each guest by name and shows each to his respective seat as previously chosen by the host and maitre d'. Another surprise is in store as soon as they have been seated. A menu–with a strikingly beautiful cover that has been personalized with the inscription of each guest's name – is placed at each cover. In addition, each guest has a book of matches with his name inscribed in gold leaf. This personalizing on menu covers and book matches is done during the short waiting period by the hat check girl.

Many of us have experienced other treatment in restaurants. Nothing is so aggravating as to be met at the door by the owner or a maitre d' or even a waitress who says, "You gotta reservation?" And there is nothing more provoking than literally to be shoved into an overcrowded waiting area or bar to wait until a table is ready. In many instances, the bars are overcrowded. The customers are maltreated and feel that they are being "taken" even before they sit down to dinner. There's an old bromide that hungry people are angry people.

Other First-Floor Areas

Note that in addition to the dining area, the layout includes an outdoor garden dining patio [62] which is pleasantly arranged with foliage, a well landscaped background and a carefully planned arrangement of tables.

The staircase [63] back of the display kitchen leads up to the second level. *(See layout)* To the right are the lifts [64] or dumbwaiters for the bakery and second floor storage areas.

An artist's drawing *(see layout)* pictures the floor on the first level, showing the tables and chairs, the glass display kitchen [65] the lobster tank,[66] the cocktail bar,[67] and the waiting room.[68]

Second-Floor Area

On the second floor plan to the right is a private office,[69] and next to it the women's dressing room [70] and the men's dressing room.[71] To the lower right are the papergoods storeroom,[72] the china, glass and silver storerooms.[73]

The main center section on the second floor area is the bakery.[74] Bakery storage,[75] the baker's refrigerators,[76] freezers,[77] dry store rooms,[78] ovens,[79] proof boxes,[80] retarders,[81] work tables,[82] mixers,[83] dividers,[84] and all other essential accessories are provided in this shop. There is also a small room for finished bakery goods.[85]

Most important is the glazing room [86] which must be air conditioned for fine pastries and such which require cooling in preparation so that the decoration treatment will not run.

Summary

This plan for a gourmet operation can be applied to a hotel, motel or restaurant or club seeking to serve prestige food. The layout described has been success-proven by an establishment catering to the most discerning clientele. This approach will certainly upgrade any hotel, motel or restaurant that utilizes it. When people tell me they don't have the proper help and don't know how to prepare an operation of this kind, I feel sorry for them. Through experience I have learned that, when based on good, solid planning, the gourmet restaurant is not so difficult as one may think. ■

Lighting Affects Your Effect!

"White" light sources are far from white and the color in the light alters the appearance of decor, food, and affects patrons' moods.

Prof. C. I. Sayles
School of Hotel Administration
Cornell University

At least seven fluorescent lamps may be considered as "white" lighting sources. Yet each produces different color effects and each differs from the familiar incandescent light source.

This fact should be recognized by food service operators in planning illumination of dining areas. The best light should be sought to display decor, and food, and to develop the most desirable dining atmosphere. Poorly chosen, light can destroy the entire effect the operator is seeking to establish.

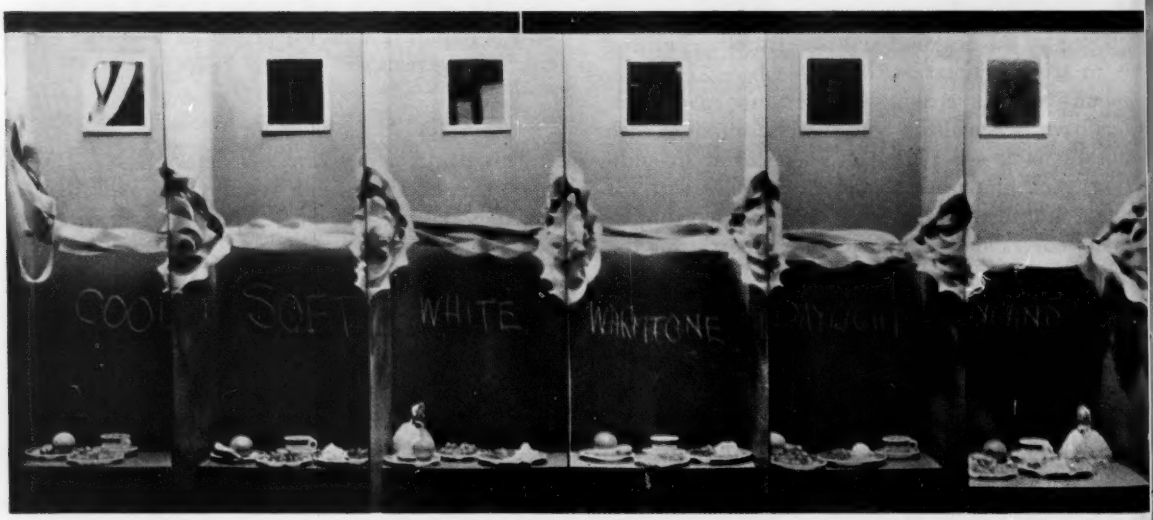
To illustrate the different effects obtained from five so-called "white" light fluorescent lamps as well as from the familiar incandescent lamp, six displays were created and photographed. The accompanying illustration shows the result. While the picture is not a true color rendition, these differences are only slightly more pronounced than those observed with the naked eye.

Six display booths were constructed of tempered brown masonite with the shiny surface facing to the left. Five different "white" light fluorescent lamps (all from the same manufacturer) were installed in the first five booths with the long axis of the tube placed from front to back. An incandescent bulb was placed in the center top of the sixth booth (extreme right).

The order in which the "white" light sources were installed is given below, from left to right:

1. Cool Fluorescent
2. Soft Fluorescent
3. White Fluorescent
4. Warmtone Fluorescent
5. Daylight Fluorescent
6. Incandescent

To establish a color reference, continuous tapes of colored crepe paper (red, orange, yellow, blue, green, purple, and white) were threaded and draped through the booths as shown in the photograph.



—Kodacolor by Dan Schreber
Photo Science Studies, Cornell

An attempt was made to show the effect of the light on food by assembling the elements of a meal —the various items being selected for their color uniformity. (The dinner plate holds rare roast beef, green beans, and mashed potatoes, garnished with a red crabapple on curly endive. A cup of black coffee and two plates, one with grapes and the other containing an orange and a banana, complete the food display. The two dolls shown in booths Nos. 3 and 6 are alike.)

Mirrors were hung in the back of each booth so that "live subjects" could enter the booth and view their reflection.

The booths were photographed with Kodacolor, the negatives developed and the reproducing color process shown here reproduced from the picture obtained with the negative. This complexity of color reproduction argues that the results are not true. Such a conclusion is perfectly admissible. *Yet the deviation from "true" is not as great as the observed differences.*

The display speaks for itself. A few comments are in order, however. A similar display has been presented many times to groups of people on the Cornell campus: hotel and restaurant operators, classes at Cornell, visitors who include interior designers. For each display, polls were conducted to learn which lighting effect pleased the group the most.

Results thus obtained indicate that the order of choices for the most desirable lighting effects are:

Men	*Women*
1. Incandescent	1. Incandescent
2. Warmtone fluorescent	2. Soft fluorescent
3. Soft fluorescent	3. Warmtone fluorescent

Two other fluorescent "white" tubes are available, but because of space limitations they were not utilized in this display. These are "warmtone de luxe" and "white de luxe." When these two were included in a preferential list, the rating has been as follows:

Both Sexes

1. Incandescent
2. Warmtone de luxe fluorescent
3. White de luxe fluorescent
4. Warmtone fluorescent

Evidence indicates that residents of warm climates prefer the "soft" and "cool" fluorescent "white" lamps rather than the preferences listed above—all selected by persons viewing them in Ithaca's cool and often cloudy climate.

It is apparent though—that different fluorescent tubes produce different colors. For that reason, the lighting source chosen for food display should be given the most careful consideration.

Acoustical Notes

The basic concepts of noise and of sound absorption were outlined by Prof. C. I. Sayles at a recent Cornell workshop. "Noise," he pointed out, "increases logarithmically—ten times as much dissonance is required for only twice the unit of noise."

The acoustics of a room is measured in "decibels" by the reverberation time required for a given sound to die out, Professor Sayles explained. Decibels range from 10 (a whisper in a quiet room) up to 120 (a thunderclap that is painful to the eardrums). Conversation in normal tones ranges from 40 to 60 decibels.

The formula for calculating the units of decibels present is:

$$t=\frac{0.05V}{a}$$

T=Time sound dies out
V=Cubic volume in feet
a=Sound absorbing units

The reverberation time (time required for the sound to die out) should be around 1.5 or 2 seconds. Otherwise, a room is "dead." For speakers addressing groups, a sounding board behind the speaker helps project the voice over the air waves. The typical classroom places a blackboard behind the instructor which serves this purpose.

The decibels of noise prevelant in areas with which most persons are acquainted include: Private office, acoustically treated, 33 decibels; not acoustically treated, 45. Dining room, 50 decibels; cafeterias, 60 decibels; and a good auditorium, 30 decibels.

The best means of absorbing sound is an open window—its score is 1.0 decibel units per square foot. Curtains, according to their type and fabric, range in sound absorption qualities from .20 to .75 per square foot. The score for ventilators is about .75 per square foot; and for acoustical plaster, around .14 per square foot.

The "well-dressed" person absorbs 4.70 sound units per square foot and an upholstered auditorium seat absorbs 3.50 units per square foot. But when the well-clad person sits in an upholstered seat, the greater value (4.70) governs the sound absorbant qualities of both.

AN EDITORIAL NOTE

Americans who dine out are becoming more sophisticated about food, Mr. Pahlmann observed in a recent address given before a Cornell workshop. But, he added, menus across the country are still rather standardized and unimaginative, featuring principally steak, roast beef, and potatoes.

Mr. Pahlmann believes that restaurateurs should capitalize on the public's increasing interest in fine foods and national foods, noting that Americans welcome new ideas and new dishes provided they are properly presented.

Selling food, Mr. Pahlmann pointed out, is a type of merchandising. The product must be good to begin with – good to look at, good to eat, and served at proper temperature in attractive surroundings. And these surroundings, he noted, need not be rich, elegant, expensive, and overpowering – just attractive.

*He agrees with William W. Atkin and Joan Adler * as to the importance of good interior design – a well-designed restaurant serving good food in the proper location can rarely fail while a poorly designed restaurant serving good food can succeed only to the extent that the manager can project his personality.*

In opening a restaurant, operators can save themselves money and wind up with a better-planned structure – whether new or remodelled – by employing an interior designer to work along with the architect. The interior designer, viewing the structure from his inside plans, can often point out where savings can be made. For example, windows – an expensive item to install – can be eliminated where they have a blind outlook and a view can be capitalized on elsewhere that will make the restaurant truly distinctive.

Food, Mr. Pahlmann stressed, must be served in attractive surroundings to sell consistently at a profit. He recommends that restaurants be furnished with a few good items and that the management inform customers, either on the menu or via pamphlets, concerning the history and value of these furnishings. This practice, he thinks, is simply good public relations that creates interest and attracts customers. As an example, he mentioned The Forum of the Twelve Caesars with its museum-level original paintings of the Caesars.

The accouterments of the table itself should be attractive, Mr. Pahlmann feels. He abhors plastic table mats and bread baskets and cheap plastic coffee containers. None of them, he maintains, have character nor quality and should be relegated to the middle-bracket coffee shop or counter-and-stool operation.

Attractive surroundings, fine table appointments, and good decorating items need not necessarily bar the family trade, Mr. Pahlmann stated. In fact, he recommends that fine restaurants cater to family groups on certain days of the week.

Parents who have the proper respect for good furnishings in the home usually try to bring up their children to appreciate the value of good things out in public, he said. Dining out in fine surroundings should be part of the education of children, especially now that the servantless home often precludes formal family dining.

Other suggestions outlined by Mr. Pahlmann are:

- When planning a new restaurant, the operator should first make a thorough market study of the area and then decide upon his exact location, menu, price level, type of service, desirable turnover, and decor.
- Restaurant and hotel bars catering to men, especially lone travelers in cities, should have stand-up bars with stools—and enough stools. Male drinkers hate to sit at a table alone.
- The wine steward should be selected for his pleasant, helpful manner as well as for his knowledge of wines and control policies.
- Courtesy and manners should be stressed in training service personnel. A surly waiter can spoil a customer's entire day, not to mention drive away business.
- The height of tables and chairs should be in comfortable relationship to the seated diner. Further, the chairs should be easy to move, have no protrusions to trip over, and the arms should not jar the table's edge.

* *The Interior Book of Restaurants*, p. 34. Whitney Museum of Design, New York, 1960.

Designs for Dining

The creator of many fine restaurant interiors and of "Designs for Dining" at the 1960 New York Hotel Exposition sets forth his philosophy of restaurant decor.

by William Pahlmann, F.A.I.D.

The comments that follow are applicable to food served in hotel dining rooms, coffee shops, snack bars, banquet rooms, ballrooms, room service (which is so often appalling), pool-side service, restaurants, roadside or highway eating places, night clubs, ship's dining galleys and roof areas. I am particularly interested in the type of operation that can be upgraded.

Interior design, as applied to the restaurant and hotel business, is a far more complicated matter than the simple requisitioning of tables, chairs, and service equipment, and the selection of color schemes and other ornamentation. It involves architecture, engineering, situation, traffic patterns, maintenance problems, housekeeping, storage, commercial aspects and the whole philosophy of atmosphere which can make or break an operation.

Interior Design as a Profession

Restaurant interiors thus are not the province of amateurs, even talented ones. They are a challenge even to the best professionals in interior decoration and design who have scores of successful installations to their credit. Only thoroughgoing experience in the creation and production of public areas can equip an interior designer to deal with the complicated requirements of a smooth-running, successful restaurant operation. Such a professional, given the management's cooperation, can produce interiors capable of raising profits almost immediately.

WILLIAM PAHLMANN, F.A.I.D., interior and industrial designer, color and lighting expert, grew up in San Antonio, Texas, and received his art education at the Parsons School of Design in New York and Paris. He founded his firm, William Pahlmann Associates, in 1946. His book, the *Pahlmann Book of Interior Design,* (Viking Press) contains not only his theories and philosophies of interior design and their practical application, but also provides a comprehensive photographic resume of his distinguished work.

A designer for successful stores (including the interiors of seven Bonwit Teller stores and several floors of Tiffany's), of entrance lobbies for apartment buildings, and of luxuriously appointed private homes in many countries, Mr. Pahlmann is also famous for the exciting interiors he has created for hotels, restaurants, and clubs.

Among the latter are the Paul Young restaurant in Washington, D.C.; The Forum of the Twelve Caesars and (in collaboration with others) The Four Seasons in New York City; the Philadelphia Country Club; the Oakwood Club in Cleveland; the Coral Harbour Yacht Club in Nassau, B.W.I.; the Dos Cientos Club in Caracas, Venezuela; and many others. An example of his re-designing skill is exhibited in the public areas and several floors of suites in Miami's Columbus Hotel.

His present assignments indicate the broad range of his interests: buildings in Cleveland and in Texas; a ladies' apparel shop in Indianapolis; the King & Queen Motel in Charleston, S.C., and the New York offices of the Armstrong Cork Co. He also designs furniture, fabrics, floor coverings, and serves as consultant to firms in the decorative trades.

The Restaurant's Three Prongs

The successful restaurant, in my opinion, rests on a three-pronged foundation of food, service, and atmosphere.

Quality Food

At the outset, no matter how simple or elaborate the fare, no restaurant is apt to go very far unless the food offered is unvaryingly of high standard. This is the domain of the chef, not the interior designer. But in the other two areas – service and atmosphere – the interior designer can make valuable contributions.

Service with Manners

Service invariably reflects the spirit of the management – its judgment in hiring personnel, its disciplines and requirements for employees, its insistence on courtesy and efficiency and its ability to install in the staff good manners and pride in the establishment.

Every restaurant employee, from the salad girl, who should really care about her job, to the people coming in direct contact with the patron, should be a full-time public relations expert.

Inviting Atmosphere

Such a spirit of service is more easily maintained if the mechanical aspects of service are simplified and the obvious drudgery removed through careful planning. The atmosphere or aura of a restaurant, it should be observed, affects the employees as well as the customers. Given a standard in which they can take pride, employees will rise to the occasion.

The Designer's Approach

The designer's approach to a restaurant interior must be realistic. He is first concerned with traffic patterns, the use of space, the control of temperature, the reduction of noise, and the most effective use of lighting. The hallmark of a good restaurant is sparkling cleanliness – all elements of a restaurant interior must be easy to clean, impervious to wear and tear, durable, and also inviting.

Color is of the utmost importance, as colors affect the mood of diners. Comfort is another basic requirement. An uncomfortable chair may deter a patron from returning to a restaurant without his even knowing why.

In allocating space in a restaurant interior, the distance between tables is important. People prefer privacy, even in a public place, and dislike having their conversations eavesdropped by customers at the next table. Neither does anyone want his elbows battered by passing guests and waiters nor to dine in fear of being splashed when the soup is served.

Tables and Chairs

Table tops should be generous enough for comfort yet not so wide as to render conversation forced or difficult. Tables should be of suitable height for the average diner and the chairs and banquettes should be planned to complement this table height. The exact dimensions are not so important as the relationship. Banquettes, it should be noted, often sag from use and let the diner down an inch or so too low for comfortable dining at the table. This is a matter that must be checked.

Chairs, preferably, should have rounded backs and no sharp corners to catch waiters' pockets or poke customers in the ribs. Restaurant furniture, particularly chairs, should be of sufficient weight to be substantial, yet easy to move. When the chair back is partly open, it is easier to transport. No patron wants to struggle with a heavy chair when he decides to get up. Moreover, service personnel must often rearrange tables and chairs.

Acoustics

The acoustics of a restaurant also demand careful study. While an atmosphere of serenity is requisite, an acoustical planning that produces dead silence can be fatal. The quiet hum of conversation is the best background music for satisfactory dining. If guests find themselves speaking in whispers, due to the dead weight of an acoustical ceiling, the whole mood of an interior may be destroyed.

Lighting

Lighting should be used like music – to suit the time, the place and the mood. When a room is crowded and the sound decibel is high, the lighting can be bright and vivid. But when the more relaxed hours arrive and diners want to linger over coffee or after-dinner libations, the lights should be muted to match a mellow mood.

My personal opinion is that rooms for dining should never be too dark to see the food and the

people. Men especially are bored by rooms so dark they must grope for their food. And ladies who are charmingly dressed for the occasion want to be seen. In hot, bright landscapes, dining rooms on the dusky side are cool and desirable – but they should never be so dark that the diner can't see clearly what he is eating. A yellow-toned light seems to show furnishings and food, as well as people, to the best advantage.

The ability to control restaurant lighting is exceedingly desirable since a change in the lighting can give an interior an entirely new dimension. Moreover, the various types of trade that frequent the restaurant at divergent hours react to different gradations of light.

Lighting fixtures should always be selected for scale as well as design. Tiny chandeliers and miniscule wall brackets can be as ridiculous as oversized crystal monstrosities that give off harsh emanations but fail to light the restaurant. Lighting is one of the most important ingredients of a successful restaurant, but, it should be stressed, the light must be disseminated over the entire room and further, it must be controlled.

Ventilation

Restaurants are cooking places as well as eating places. But the reek of cooking odors or the fragrance of ancient oil or grease can defeat the most tasteful decor. It is essential to keep cooking odors out of the dining room. In choosing materials for an interior, it is best to avoid fabrics – and some wallpapers, particularly those with a flocked design – that soak up odors and give them back later on. The materials used in public eating places must be easy to clean and the air conditioning constantly checked to maintain freshness.

These matters outlined above are primary when the interior designer undertakes the planning of a restaurant interior. When he has coped with these considerations, he is ready for the design motif of the room, a motif which can make the restaurant singular, special, and unlike any other.

Selecting the Motif

To the problem of selecting a motif, the professional designer brings a most priceless ingredient – imagination. Imagination can turn an ordinary space into an inviting and exhilarating experience where people want to come and come back again. The interior designer chooses the theme of the restaurant and enlarges upon it, conveying the glamour and the excitement of an idea so that it adds immeasurably to the pleasure of eating.

In the choice of a theme, the designer is influenced by the restaurant's location, the space available, and the nature of the customers the restaurant is likely to attract. He is able to coordinate all these aspects and give the interior the fillip of imagination that is part of his stock in trade.

Forum of the Twelve Caesars

When I designed the Forum of the Twelve Caesars in New York, I conceived it as a restaurant primarily for men, where they would entertain the ladies they liked best. The Forum is located in Rockefeller Center, accessible to a vast number of executives who lunch in that neighborhood. It is also within walking distance of the theater district of New York, thus making it popular for pre-theater dining. It is primarily masculine, as I have said before, but women look well in it. The theme was derived from a series of twelve Seventeenth Century paintings of the Imperial Caesars, which the large scale of the room could easily accommodate. The name, the decor, the atmosphere, and even the menu of this successful restaurant grew out of this theme.

The paintings dictated a certain splendor in style. Thus the room was designed to deliver this splendor and rich reds, imperial purples and burnished gold was used in the color scheme. The walls were hung with cleanable printed cotton in a warm, rosy red to provide suitable background for the paintings. The table accessories were designed to carry out this theme of richness and all appointments were selected to complement the theme.

The Forum is an unusually large room and although it is entirely uncluttered, it has an atmosphere of warmth and good living which binds its clientele to it. It is as *gemütlich* during off-hours, when it is not full, as it is at the height of the luncheon or dinner hour when every seat is occupied. Although The Forum is fairly new in calendar years in New York, it has already accumulated a garland of tradition which makes it a must for visitors and a haven for New Yorkers.

The Paul Young Restaurant

In designing the new Paul Young Restaurant in Washington, D.C., I worked on the theory that residents of Washington would prefer warmth,

An atmosphere of elegance on a modest budget was achieved by William Pahlmann Associates for Paul Young's restaurant in Washington, D.C. Persons enter the restaurant at street level by way of a small reception area paneled in cherry wood and furnished with English antiques and plants in old brass jardinieres. Beyond is the Safari Cocktail Lounge, with wall-to-wall, simulated-leopard carpeting, colorful banquettes and chairs, and wall murals of jungle and safari scenes.

Above: The main dining room, on the lower level, is entered from a specially-designed wrought iron stairway with light posts and a suspended ceiling covered in Roman gold-foil paper. Two huge 17th century brass chandeliers (*one of which is pictured above*) and brass wall-bracket lamps add elegance to the richly colored appointments. Walls are covered with red, orange, and black printed cotton fabric and, in the alcoves, with cherry-wood paneling. The brown-black banquettes and persimmon-colored chairs are upholstered with vinyl. The tweed carpet has a geometric pattern of red tones.

geniality, and charm – an atmosphere that would encourage conversation. This beautiful restaurant, though contemporary and high-styled is consistently softened by fine old Lowestoft platters on the walls, cherry panelling, warm colors, rich fabrics and a general atmosphere of leisure and good living.

The Safari Bar of Paul Young's has a stunning mural by William Moulis, a bow to the international spirit in Washington. The Regency Garden room makes a delicate bid for the custom of ladies. These various themes enable the restaurant to offer a wide variety in atmospheres to the denizens of this most cosmopolitan of cities.

Miami's Columbus Hotel

In planning hotel public rooms, the theme supplied by the interior designer is also of paramount importance. In redesigning the public rooms of the Columbus Hotel in Miami, Florida, a few years ago, I chose themes to emphasize the hotel's background and the area it serves. In a hotel of this nature, it is possible to increase patronage by giving holidaying customers a variety of choices in room decor.

So we developed a Bahama Room with a Bahama Bar in conjunction for the casual diner. We paid tribute to Columbus' flagship with a Santa Maria Room. The Orange Bowl Room carried out not only the theme of a popular industry and a popular sporting event, but also a popular tropical color! And the Vizcayan Suite with its private dining room reflected the theme of the great Mediterranean villa, built by James Deering in Miami, which is now a museum.

The Top-of-the-Columbus, a roof space that had hitherto been used only as a lunch room by local service clubs, blossomed into a glamorous roof garden that took full advantage of a superb view of Biscayne Bay. This room was also equipped with a cocktail lounge, made from what had been a corridor and which had to be extended out 17 feet over a lower setback in the building. This little-used roof space, elegantly appointed, has now become a prime moneymaker for the hotel operation instead of a liability.

The professional interior designer can often be of value to hotel management by recognizing unused or waste space with a vast potential for profit. He can also produce the type of interior that will help realize this profit potential.

Above: An intimate alcove for dining at Paul Young's restaurant in Washington displays fine blue-and-white Staffordshire as well as Lowestoft platters and an 18th century painting of a Chinese scene. Well-placed plantings in copper jardinieres complete the decorative theme.

The Designer as a Sociologist

To design public eating places, the interior decorator must have a wide range of experience in different parts of the country and some knowledge of the habits of the population. While a New York restaurant may be justified in choosing a hyper-sophisticated style for an interior, there are many areas in the United States where people are put off by brittle sophistication. They prefer more relaxed surroundings.

It is essential that the temper of the potential customer be thoroughly understood before final decisions are made on decor. Sophistication is not necessarily the hallmark of an interior that has been professionally designed—glamour and warm-heartedness can also be combined in the planning.

The Designer as a "Creator"

In the design—or redesign—of public eating places as well as of hotel public rooms, the interior designer's thinking is of utmost importance. The professional designer, as a rule, travels widely to stimulate his own creativity and he is (or should be) familiar with the great hostelries of the world. He can bring to your hotel the valuable ideas he garners in far-flung places and the going concerns he patronized in his travels.

The whole pattern of dining out has changed in America in recent years, due to the decline of domestic help. The family that formerly had a cook in the kitchen is now likely to entertain in a public restaurant—provided of course they find one nearby that can make them proud hosts.

Interstate HOSTS to Service Los Angeles International Airport Food Facilities Through a Central Commissary

Frank H. Davis, Cornell '49

Director of Personnel and Public Relations
Interstate HOSTS, Inc.

Interstate HOSTS will operate the twenty-one coffee shop-dining rooms, cocktail bars, gift and newsstands at the new $50 million Los Angeles International Airport, the first unit of which will open in June 1961. The panorama above pictures the 265-acre area that will have an administration building, six "Satellite" airline terminals and various subsidiary service buildings. These Satellites will be connected by means of an overhead transportation system at roof-top level operated automatically from the control tower shown in the foreground.

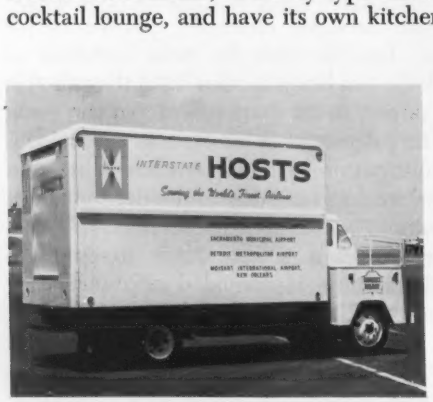
Food Facilities

Six coffee shop-dining rooms, located in the six Satellites, as well as an employees' cafeteria, will be serviced from a central commissary. The Central Theme building (the parabolic dome to the right center of the panorama) will house "The International Room," a luxury-type restaurant and cocktail lounge, and have its own kitchen.

Interstate HOSTS is spending nearly $3 million to make the airport's restaurants among the most spectacular in Southern California. Fred Schmid & Associates of Los Angeles are developing the food production areas. About 500 employees will be required to service the food requirements of the estimated 1,600 patrons who will be eating in Interstate's facilities at any one time.

The coffee shop-dining rooms will each occupy one entire side of the six 80,000 square foot Satellite buildings. Each will feature a different décor based on Southern California's famous heritage, including such themes as: "Early Days of the Movie Industry"; "Famous Sights of Los Angeles"; and "Mountain and Desert Recreation."

The cocktail lounges opposite each dining area will depict other famous California motifs, such as: "The Flicker Room," honoring Hollywood's movie stars, past and present; "California Wine Cellars," depicting various phases of this industry; and "The Hawaiian Room" to set the scene



Typical in-flight type truck which will service food installations from the central commissary. The truck bed will rise 13 feet in the air to service Satellite kitchen areas directly with aluminum carriers containing pre-portioned food supplies and other items.

The Central Theme building has four parabolic arches rising 132 feet in the air to support a gourmet-type restaurant and cocktail lounge seating about 300 people. The restaurant is 70 feet above the parking level of the terminal and has 11-foot high windows completely circumferencing it, thus providing a spectacular view.

for the air traveler about to depart for the 50th State. Still another lounge will be designed around the "Patio" theme of Southern California, with a full-length garden mural recessed behind patio arches.

The Central Theme Restaurant

The most spectacular and elegant of the dining operations will be "The International Room" in the Central Theme building. This restaurant and cocktail lounge, seating about 300, is located 70 feet above ground level and overlooks the entire Los Angeles area. Three high-speed elevators will deliver patrons to this restaurant while one will deliver passengers to the Observation Area twenty feet above it. Silver service, flaming entrees, salads tossed at table side, and flaming desserts will dominate the menu prepared in The International Room's adjoining kitchen.

The Central Commissary

To service the food requirements of Interstate HOSTS' various operations at the Air Terminal, a commissary of 30,000 square feet with a refrigerated storage area of 16,552 cubic feet is located at the base of the Central Theme structure. It is here that food will be received, processed, and rough prepared. Food processed to this point will be delivered to The International Room for final preparation. But for the six Satellite restaurants and the employees' cafeteria and other operations, final preparation will take place in the central commissary and then be moved to the six restaurants in refrigerated trucks.

Estimated monthly purchases will include 120 tons of food supplies, 1,000 cases of liquor, and 120 tons of news and gift-shop items. The receiving and shipping platform, which is 60 feet long with extended wings on both sides, can accommodate up to 18 trailer trucks at one time. And it is expected that some 150 trucks per day will be making deliveries to the commissary.

All supplies will be checked in at one central point and then distributed within the building. Gifts, news, magazines, and liquor are delivered to the basement by means of a reversible belt conveyor and there unwrapped, inventoried, and made ready for distribution.

Meats, vegetables, and grocery items are routed in the same direction on the main floor of the commissary so that flow patterns are established for each item. Vegetables are cleaned, topped, and stored immediately upon receipt. Meats are stored and processed into holding refrigerators. The vegetables and meat lines are on each side of the cooking or preparation areas that combine the two into ready-processed items which are frozen or refrigerated for distribution to the restaurant areas.

Groceries are kept in a long narrow storeroom which will be operated much like a supermarket with all items readily accessible for filling orders placed by the various restaurants.

Internal view of The International Restaurant to be operated by Interstate HOSTS. Menu will feature full French service with flaming entrees and desserts.

The size of the module is 18″ x 26″ with all items being stored and transported on 18″ x 26″ pans, wire baskets, or boxes. Storage within the commissary is in portable racks fitted with slides to accommodate the 18″ x 26″ module container.

The refrigerators are push-through types made to accommodate the carriers in groups of three to nine. This refrigerator was developed to utilize as much of the refrigerated storage space as possible. All products on racks are put into the back ends of these refrigerators and then removed from the front end for distribution or further processing. This insures a constant flow of products in an orderly manner. A series of refrigerators and freezers are located adjacent to the shipping platform for the receipt and storage of dairy products and ready-processed frozen food items that require only distribution.

Ready-to-use laundry is received in portable carts with each cart marked for the ultimate point of use. One or more carts will hold the entire day's supply of uniforms, towels, linens, and the like for the particular area it services.

The commissary also includes a large bakery for preparing pies, pastries, and sweet rolls. Bread and dinner rolls will be purchased from an outside source and delivered daily in special containers to match the 18″ x 26″ module size. Other facilities in the commissary area include a trash-consolidating area, mechanical pot and ware washing, carrier washing, the employees' cafeteria, and employees' lockers and restrooms.

Food Deliveries

All orders received from the Satellite restaurants are processed, filled, and checked by control personnel located at the exit portion of the commissary. Deliveries are made in closed carriers with side-opening doors, sized to fit the 18″ x 26″ pan module. These carriers will be filled with processed meats, vegetables, groceries, dairy products, and all other items needed by the restaurants on a twice-daily schedule. The carriers are transported to the restaurant areas in flight-line type trucks with scissor-lift bodies.

The trucks can be driven directly to the restaurant areas of each Satellite building, elevated to a height of 13 feet and unloaded through sliding doors directly into the kitchen area. The carrier doors are then opened, folded to the sides, and set in place on the back wall, forming a mobile storeroom.

The trucks are refrigerated and all perishables are removed from the portable racks and stored in refrigerators at the point of use. Menu items served in the restaurants have been processed to the point that the final steps only are required in the restaurant before serving to the customer.

Plan Available for Processing Hotel Payroll Data

The "Automation for Hotel" research project being conducted by the School of Hotel Administration at Cornell—in conjunction with the American Hotel Association and the Statler Foundation—now has available what its officials term "a good workable manner for computing hotel payrolls through data processing."

This conclusion is set forth in the introduction of a recent report directed to the Research Committee of the American Hotel Association by Prof. C. I. Sayles, who heads the project at Cornell. "One of the biggest tasks confronting hotel operators is that of proper programing," Professor Sayles said, when interviewed at his headquarters. "Up to this time, hotel operators who have outside agencies do their payrolls have had both encouraging and discouraging results. It is our feeling, after checking over many installations, that more thought should have been given to *programing* the essential data."

"Programing," as defined by Professor Sayles, is a careful plan for the data to be used, how the data are to be organized and the routine procedure set up under which the data, as they become available, are introduced to the machine as well as the form in which the machine makes its response.

The schematic program recommended in Professor Sayles' report to AHA is directed primarily toward computing hotel payrolls under New York State's complicated wage laws. This involves a separate computation of the New York State Minimum Wage as it applies to an individual employee and a comparison of such a computation against the wage the hotel is paying. The plan presented outlines in detail the information required for the "master tape" and for four different "input cards" and further includes several pages of "flow diagrams."

This same schematic program can be adapted to hotel operations in states with similar or less complicated wage laws, Professor Sayles pointed out. He invites hotel operators who are now using or who are contemplating the use of electronic payroll installations to take advantage of the program developed by the "Automation for Hotels" research staff and thus benefit by as well as check upon its effectiveness.

The firm of Fair, Isaac & Company, who have worked out data processing applications for several well-known companies, is serving as consultant for the project. A wide base of hotel experience is provided through a group of persons from cooperating hotels and hotel accounting firms, hotel consultants, an official of the New York Telephone Company, and a representative of the American Hotel Association.

For further information—or to participate in testing out the plan for computing hotel payrolls through data processing, write:

"Automation for Hotels"
Statler Hall, Cornell University
Ithaca, New York

In Defense of American Food

Who said there was anything wrong with thick, juicy steaks, prime roast beef, baked potatoes, garden-fresh vegetables that taste like vegetables, and a slab of honest-to-goodness fresh apple pie?

By Com. Leslie E. Bond, U.S.N. (Ret.)

At the outset—and I am an alumnus of that famous educational institution that promises its recruits that they will see the world—I believe we should adopt the premise that American quantity food, as served day-in and day-out in operations of every kind and purpose, is superior to any other in the world.

This statement may excite some comments from the fellow who has just been to Europe at someone else's expense and thus hasn't wined and dined in other countries' typical beaneries or institutional serving centers.

. . . and Forget the Shish-Kabob!

I say that it is about time to evidence weariness with the fulsome tribute being paid to the cuisine of the so-called "traditionalist." The American cuisine can stand on its own feet as "real good eating" without the current exaggerated presentation and the "flaming messes" seen in some of our burlesque restaurants. For my part, the sensationalist who sticks a lighted sparkler in a baked alaska adds nothing to the preparation or service of this item other than, perhaps, making some five-year-old happy.

True enough, our cuisine—and we have developed an "American cuisine"—is in part an admitted adaptation and blending of the desirable elements in the world's cookery. (We also like to think the same about our population.) When we've been dissatisfied with the original product as it was introduced, we've modified it.

Currently, we are enamored with the tomato sauce and pasta of the Italians. The Chinese taught us how to cook vegetables properly—to retain their texture and fresh taste and do away with the cream sauce. The pastries of the world's bakeshops have been adapted to our methods and taste and added to our native dessert pies, to which they always run a poor second. We consistently over-emphasize the French contribution to our contemporary sauces. Top-quality food doesn't need camouflaging with the "classic" sauces or always drenched in butter!

In nearly every instance, when we have adopted a food item we have also modified it. This fact is especially evident in meat recipes and in the type and amount we place in a recipe. There is no place in the American cuisine for the dibs and dabs of meat customarily used in preparations in those parts of the world where meat is hard to come by.

Grandma Grew Okra

The food mores of a region are basically predicted on the raw foods of that locality, on the packaging, marketing, and pricing of the foods shipped in, and upon the techniques and skills of the preparation staff. The food habits of a local population are formed as a rule by what is offered to them and not by what someone tells them is good for them.

Hence the lukewarm acceptance of the corn meal we shipped to Europe after World War II, of the white flour we shipped to Oriental countries,

(continued on page 49)

The tables to the left hold hors d'oeuvres, salads, and relishes. Desserts (not pictured) are to the extreme left. Patrons form another line to the right for hot dishes and roasts.

Stage-Managing Your Buffet

Prof. J. William Conner

Managing Director, Statler Inn; Secretary-Treasurer, The Statler Club, Cornell University, Ithaca, New York

Your skilled chefs can produce fabulous creations for display on buffet tables. Good cooks can produce tasty but not unusual looking dishes. In either case, a properly created buffet can make all food more desirable.

The first step in arranging a buffet display is to set out your wonderful food on a long flat section of tables. The food looks good. Next, create an interesting "skyline" by elevating an item or so. Then move some tables forward, or place half rounds in front, quarter rounds on the ends, or even separate the tables to form islands. Tables can be arranged to form flying wedges, zig-zag, U-shapes, S-shapes. Variety and change are essential when buffets are presented regularly, especially to repeat patrons.

In order to "speed the line" and have more people helping themselves at the buffet table rather than standing in line, spread out your food items to provide more table length or "guest contact area." If your guests make one selection per foot, the line will move faster than if they must make three decisions per lineal foot of buffet table.

Now to give the buffet life, showmanship, skill exhibition, and "hostmanship," put your serving people behind the table in white uniforms, chef's high hat, kerchief and all. Have them offer, explain, and serve food. This is service hospitality and it also speeds the line.

You will add the artistic touch by use of greens, ferns, flowers, and candles on the buffet table. "Staging the table" with palms, drapes, ferneries, screens, frilled skirts for the table, backdrops, pools, fountains, and theme props will add to the occasion. You are creating for the guest who looks not only for food but for food that entertains and is doubly special because of its presentation.

The public you serve has been exercised by sales experts, experts dedicated to their job of convincing, merchandising, and selling. People enjoy and expect all of the attention they can get when they signify their intention to spend. So give your public a quality product to keep them sold in an atmosphere of beauty and pleasure. Give them showmanship, display, exhibition of skill, movement, lights, color, and cheerful attention from your personnel.

- *For showmanship,* stage your table, use spotlights, flood lights, and candles to achieve high and low spots of interest.
- *For dynamic display,* rely on color in food, table linen, and flowers. Use varied elevations and horizontal design in tables for depth, dimension, and form.
- *For the cheerful giving of attention,* put your happy servers in uniform behind the line and depend upon their pride in the affair as well as in themselves.

(continued from page 47)

and of the creamery butter we shipped to India. For the same reasons, Americans abroad respond to signs like "American Bar," "Coca Cola," and "hamburgers with french fries."

Glories of the Super-Market

No other region on the globe offers the same quality and variety of raw foods as are available in the typical American market. Anyone familiar with the super-markets at every American crossroads need only make one trip through another country's markets to have this statement sink home.

The quality of beef we accept as normal is not consistently found in any European market. The grade, variety, preparation, and packaging of the fresh fruits and vegetables so abundant in our markets give food service operators year-round access to produce that is the envy of the world's chefs. The endless variety of top-quality raw, cooked, and frozen foods further eliminates most seasonal restrictions. And the many prepared foods, cake mixes, meat extracts, tinned sauces, soups, and individually prepared and portioned exotic foods permit the presentation of top quality in establishments that once could be expected to offer only mediocre food.

Purchase by Specification

Our distribution system for these items has practically eliminated the local market place for institutional buying. No longer must the food operator "go to market." Instead, he purchases by specification—in most instances, true enough, by brand-name specification—but by specification nevertheless.

The establishment of federal grades and standards to serve as measuring sticks for product excellence is the primary factor that makes it possible to order by specification rather than go to market. It is only logical, moreover, to assume this desirable system of standards will be extended to the increasingly used prepared, cooked, processed, portioned, and packaged foods.

I am the first to acknowledge that in many civilized regions of the world there are occasional great places to dine out. But once we leave these enlightened establishments, we are usually faced with uninteresting, drab food of poor quality, poorly prepared, and handled in a most unsanitary fashion. Service degenerates at a fast rate, also, as one leaves metropolitan areas. This was once true in our own country. Today, though, one can travel almost anywhere in the United States and be certain of finding excellent food. This desirable circumstance is due to several factors.

The country-wide marketing and processing of food products previously mentioned is, naturally, of primary importance. Standardization of product has also been accompanied by standardization of methods and equipment, a beneficial development brought about not by legislation but through education and other forms of communication. The graduates of our home economics schools are due a big bouquet for their powerful influence in bringing about standardization of procedures in our retail food service industry. Trade publications are also accorded a respectful bow for their constant pounding away to impress the need for improved methods.

Figures and Food

Strangely enough, accountants have also been prime movers in bringing about better production methods. The long-used methods of procuring and preparing foodstuffs had become too expensive for the competitive hotel and restaurant outlets. Pressure from the controller's office led to new purchasing and preparation methods and these were forced down the throats of the unwilling "traditionalists."

The "traditionalist" has resisted standardization as an affront to his art and an infringement on his long-established privileges. But he is too expensive to maintain in the luxury to which he was never really accustomed, as such luxury materializes in high food costs not to mention the expensive and wasteful use of man hours.

Quality in Quantity

The full extent is not readily apparent of what the food technologist and others on research staffs of food processors have done to supplant the cook and to insure quality in quantity operations. In our industry, it was inevitable that quantity food production would be standardized to replace the ill-advised efforts to preserve culinary art.

The cook's manipulative skill has not been replaced—but the wasteful guesswork, written or remembered, has been superseded by specific measurements and instructions. Moreover, product control, portions, and yield are better assured through the standardized production line than in the former, one-person dominated quantity kitchen.

Cheers for "The Girls"

The dietitians, professional food graduates from the schools of home economics, have carried the ball so far as institutional food preparation methods are concerned. They have adapted and put into current use the nutritionists' recommendations for retaining nutrients in prepared food. Until recently, the dietitians' preparation methods have not wholly met with consumer acceptance. But public food tastes are changing, due in great part to the diet- and nutrition-conscious articles printed in everything from *Business Week* and *Fortune* to the *Ladies Home Journal* and *Parents Magazine.*

As a professional group, the dietitians in many instances would have benefited from more managerial courses in college, particularly in supervision. Yet, they mature quickly on the job—they have to in food operations—and when they do, a superlative food service is apt to appear.

The Revolutionary Chef

Chefs, in most instances, have been content to remain at the skilled-trade level. Good pay is probably one reason. Another may be their inability to communicate with management, either verbally or in writing. This handicap, coupled with a reluctance to leave the kitchen hierarchy, has been fatal to a group who should be on the ladder to executive billets.

The few contemporary chefs who have entered executive ranks prove without doubt that the chef has the requisite leadership skills. But many belong to the "conservative" element in our business who yearn for the good old days of the skilled culinary employee who worked up through the lengthy, grueling apprenticeship route. The "traditionalist" knows that it is unrealistic and futile to hope for these old-time methods in our economy. Yet, like many other artist-craftsmen, he still resists new methods, new products, and new equipment.

Now this "conservatism" on the part of chefs is rather surprising. The great classical chefs in the past were radicals—the proponents of the new method in practically every instance. To name a few: Careme introduced spectacular presentations. Alexis Soyer developed brilliant kitchen layouts and his adaptation of quality-quantity methods in the mobile hospital kitchens he designed and operated in the Crimea deserve our plaudits. Escoffier painstakingly standardized his recipes. And we certainly shouldn't overlook Brillat-Savarin, that gastronomic philosopher whose searching criticism of his cook's efforts indicated impatience with methods and products that could and should be improved.

All of these "greats" can be cited as the leaders of the "old schools." But none of them let the barnacles of traditionalism stand in the way of their own progress in the culinary arts.

The New Key-Man

With all due credit to the dietitian and her accomplishments, and with a sympathetic tear for the chef's predicament, let us turn our attention to the new key man in today's food operation.

This management position is variously entitled "caterer," "manager of the food operation," "chief food service operator," "food and beverage manager," "food and beverage controller" and other such appellations, including a number less flattering. The person filling this position must speak the language of the chef, the steward, the controller, and that of the owner or manager of the establishment as well.

In the past this food manager has been recruited from numerous jobs about the food operation—food production, accounting, stewarding, the maitre d's office—and often hi-jacked from competitors. More recently, he has been coming from the schools of hotel administration, where this position is viewed as an important step toward managership and possible ownership later on.

At the outset, this recruit from the halls of ivy usually lacks thorough-going experience. Although this factor can be a handicap, there are also benefits—his insight is not blinded by the set pattern in which the food operation has been functioning and he may thus perceive areas for improvement not visible to those who grew up within its limitations.

This college-trained recruit has a theoretical background that helps prevent repeated trips up blind alleys as he generally picks up and retains the tricks of the trade with fair rapidity. He is not a cook but he knows cookery. He is not an accountant but he has had specialized food and beverage accounting as well as general accounting. He is not a nutritionist but he has had solid grounding in food chemistry. He is not a steward but he has had the economics, accounting, and specification-purchasing background desirable in the person who must supervise the steward.

(continued on page 98)

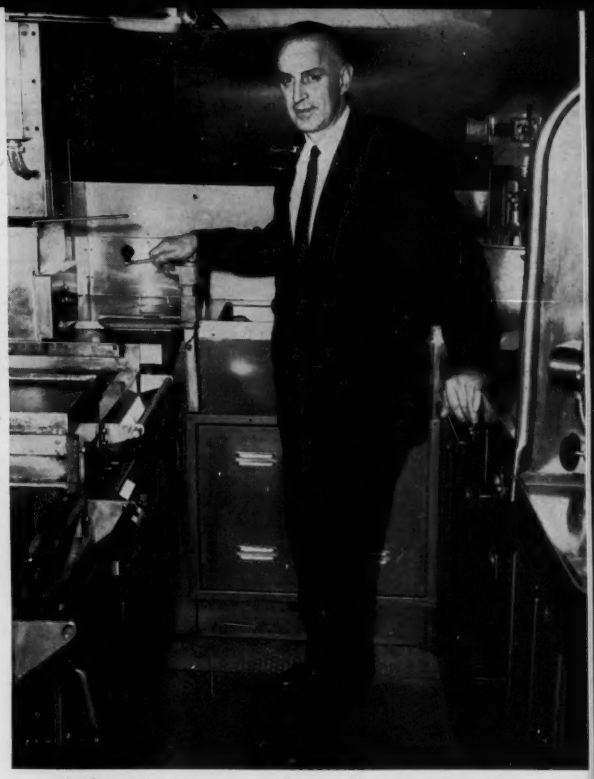
Traffic Flow
Good Layout Cuts Costs

Arthur C. Avery

Technical Director, Food Science and Engineering Division
Naval Supply Research & Development Facility, Bayonne, N.J.

What Mr. Avery has done to conserve the taxpayer's dollar in redeveloping the engineering for the Navy enlisted men's mess, both aboard ship and shore based, is worthy of the highest commendation. The principles which he has so capably employed to conserve the personnel required for preparing, cooking, and serving Navy personnel could be applied in many other mass-feeding operations.

—Prof. O. Ernest Bangs



Arthur C. Avery, a 6-footer, shows compact yet "roomily designed" working space in the 6 x 9 foot galley of an older type submarine.

If we could telescope time and take a census of the problems faced by food service operators some twenty to thirty years ago and then compare them with the problems faced by today's management, significant differences would be clearly evident. Not that the "good old days" were by any means rosy – as anyone with a few gray hairs will gladly testify – but the emphasis upon what makes for good food service layout would be entirely different.

In the past, designs for food service establishments were governed by two main considerations:

- Giving the customer the type of dining room that would attract and retain his patronage.
- Giving the chef the type of kitchen equipment and layout that he wanted.

Beyond these considerations, little else complicated the design of feeding facilities. In fact, any good carpenter, electrician, and plumber could do a fairly good job on his own. Both the public and the chef wanted familiar atmosphere and equipment.

In contrast, the kaleidoscopic changes brought about by technology during the last quarter of a century have had a decided effect upon food service operations. Customers now demand more entertainment or else more speed when they dine out. Today's dining rooms must either have an exotic decor, with entertainment as the major objective, or else be set up as highly efficient cafeterias and counter-service operations stressing customer turnover. Kitchens are no longer chef-dominated—the cost and profit-conscious food and beverage managers are taking over.

Keeping payroll costs in line has become the cardinal rule for today's management. Labor costs, proportionately, constitute a far greater share of gross income than they once did and at the same time the help available is less skillful. Added to this, costs for raw food products, construction, and equipment have also spiralled. Competition has become keener all along the line—from quick lunch counter to plush restaurant—and the public demands and gets better value for its away-from-home food dollar than for any other commodity.

Planning for Efficiency

The food service industry, pressed for greater efficiency, has quite logically endeavored to follow the factory-type production pattern: receiving, preliminary processing (the building of small components), main processing, assembly, and delivery.

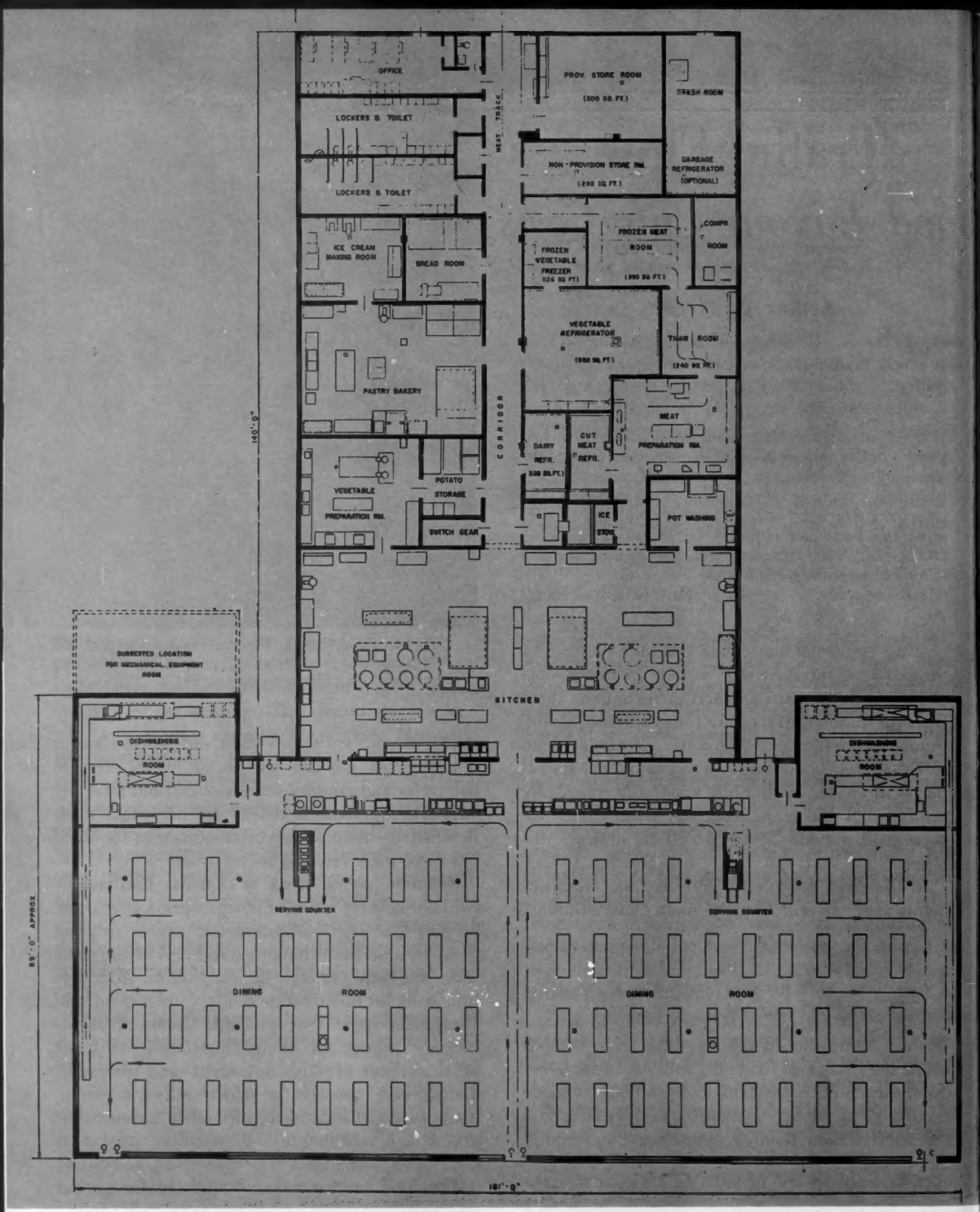


Diagram I. This T-shaped food service layout for about 2,000 men was once considered "modern" and efficient. Research now shows raw food products had to be moved too far, much backtracking was involved, and that placing kitchen equipment parallel to the serving lines made supply lines too long. Biggest flaw in the arrangement perhaps was locating the manager's office at the extreme rear—adjacent to receiving but too far removed from production and serving.

The "T-Shaped" Layout

Let us examine a "factory-type" food service layout to determine whether it is truly a good production arrangement. (*See Diagram I on page 52).*

First (*upper wing*) came the receiving platform where foodstuffs were weighed and inspected. The manager's office (*to the left*) was located at the entrance, enabling the manager to keep an eye on the important function of receiving. Across the corridor (*extreme right*) was the garbage disposal room.

Next, and adjacent to the receiving platform, came the storage rooms. In many instances dry storage would be located on one side of the corridor and refrigerated storage on the other.

Following the storage area on the corridor would come the bakery, meat, and vegetable preparation rooms. Lockers and employee rest rooms would be thrown in somewhere. Finally the corridor would open out into the kitchen proper, where phalanx after phalanx of cooking equipment would be set up in rows parallel to the serving lines.

To replenish the serving counter, the kitchen worker passing through this maze had first to make an "end run" to avoid hurdling equipment barricades, then circumvent the vast baine-maries, and finally scurry through the narrow kitchen door to reach the back of the serving line.

Such was the so-called "modernized" food service facility. In fact, such layouts—and many far worse—are still being used. Needless to say, such a layout does not provide good work flow. Considerable improvement must be made in this setup before labor costs can be significantly reduced.

Fallacies in the Layout

What did we have in this old concept? Let us take a look at it.

First, the manager's office was located in a splendid position for him to inspect incoming foodstuffs—but in a lousy location for him to manage the kitchen. He could see neither the kitchen nor the serving line as his view was limited to raw food and garbage.

Second, the storerooms were usually located with their doors opening into the passageway. This was not bad from the standpoint of incoming food. Yet food as a rule came in for storage but once a day and was taken out many times.

A man working in the butcher shop would come out into the corridor, walk down to the refrigerator, open it to search for and take out specific meat primal cuts, making numerous such trips in and out during the day. As he worked, the open door and his handcart blocked the passageway. After returning to the butchershop with his load of meat, he would work it over and then carry the fabricated product back to the refrigerator to be held as needed.

About this time a cook would come down the long corridor with another cart, open the meat refrigerator door again, making several trips in and out to get the meat he needed to cook. Actually, he was fortunate to have a cart—many kitchens did not and meat had to be hand-carried back and forth in the passageway.

As most refrigerators at that time were built on top of the floors, the high door ledges precluded the pushing of carts into the boxes for loading and unloading—to say nothing of preventing the use of wheeled shelving that obviates multi-handling.

In the kitchen, the long, solid rows of griddles, fryers, kettles, and ranges caused much unnecessary walking—to get raw materials; to take partially cooked food to the ovens; and to bring fully cooked food to the baine-maries or serving lines. Moreover, much working back and forth across aisles was necessary between the cooking device and worktable with both raw material and cooked product.

Work Movement

If you were to check through a typical menu in such a layout, you would find a movement of 150 feet from loading platform to serving line. An efficiency-conscious and labor-conscious architect could cut this distance to 65 feet. If you were to add the great amount of required lateral movement to the original 150 feet, the difference between the described layout and the efficiency-engineered layout would be even more striking.

As a case in point, let us follow through with the preparation of mashed potatoes from receiving to serving line:

> To feed 2,000 men, nine sacks of potatoes would be required. If they were hand-carried, a worker must go back and forth 1,800 feet to move them into the vegetable refrigerator. If he used a cart from door to door and hand-carried them into the box, he could cut this distance to 350 feet. And if he could wheel the pallet or cartload

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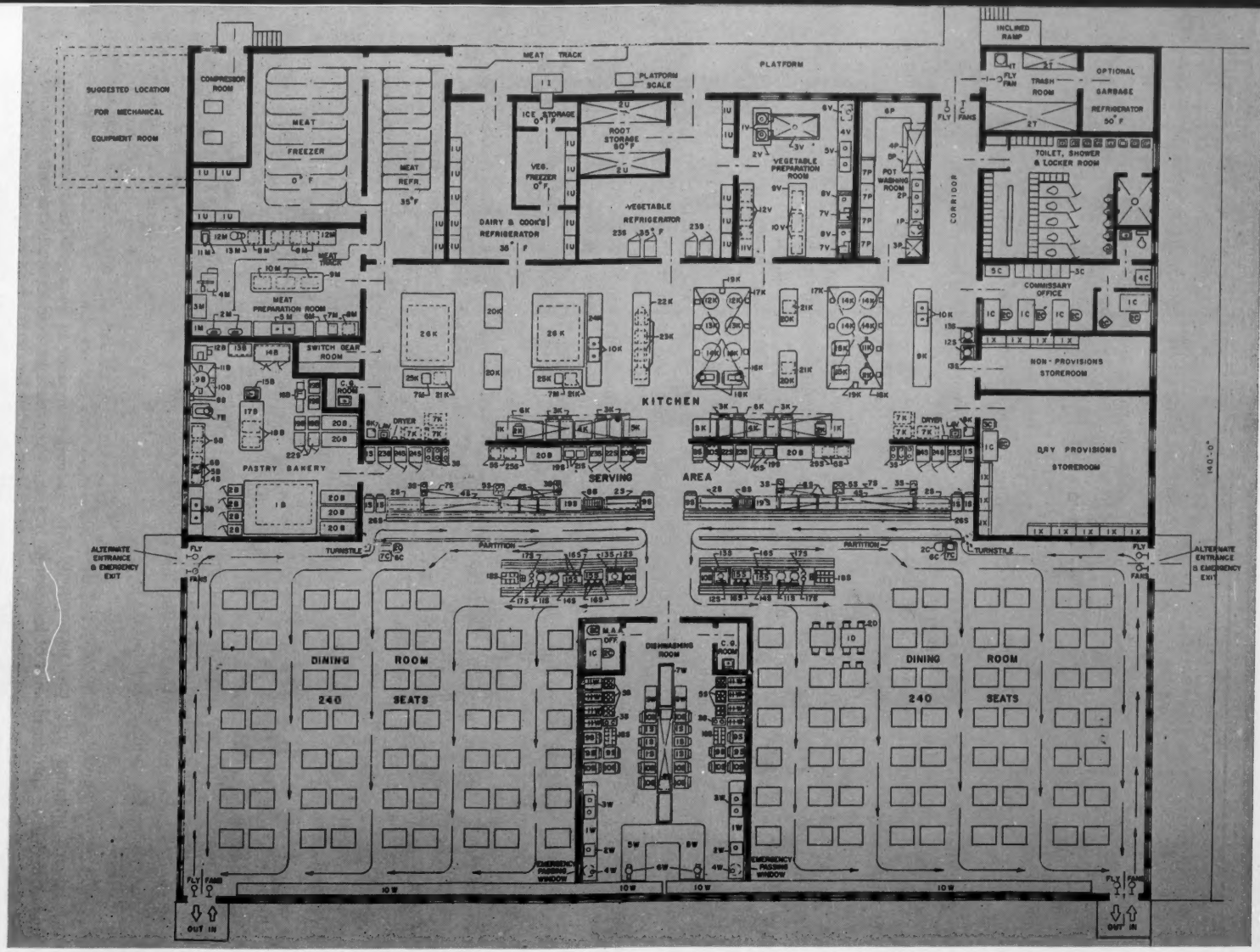

Diagram II. This square-shaped food service layout for 2,000 men placed food production and serving lines in the center with receiving, preparation and storage rooms on three sides, arranged to minimize back-and cross-tracking. By placing kitchen equipment at right angles to the serving lines (with mobile hot and cold holding cabinets directly behind serving) supply lines have been shortened and service speeded up. This more efficient layout would cost nearly $100,000 less to build than that shown in Diagram I, require one-third less floor space and about three-fourths the manpower.

Diagram II. Schedule of Equipment

Sym.	*Qty.*	*Name or Description*
		Dining Room and Serving Area
1D	120	Table, 4-man
2D	480	Chair
1S	12	Automatic Tray Dispenser, Mobile
2S	4	Refrigerated Counter
3S	12	Automatic Dinner Plate Dispenser, Mobile
4S	2	Steam Table
5S	12	Automatic Soup Plate Dispenser, Mobile
6S	6	Electric Griddle
7S	2	Hood
8S	2	Bread Counter
9S	10	Automatic Glass Dispenser, Mobile
10S	12	Automatic Cup Dispenser, Mobile
11S	4	Coffee Urn, Combination
12S	4	Cold Drink Dispenser
13S	4	Dispenser Stand, Mobile
14S	2	Beverage Counter
15S	4	Milk Dispenser
16S	12	Water Bubbler
17S	4	Cream Dispenser
18S	4	Cutlery Truck, Mobile
19S	4	Table, Mobile
20S	2	Ice Cream Freezer Cabinet
21S	4	Electric Toaster
22S	4	Pastry Cabinet, Mobile
23S	8	Frigid Cabinet, Mobile
24S	8	Hot Cabinet, Mobile
25S	2	Table
26S	2	Tray Slide
		Kitchen
1K	2	Table
2K	2	Steam Cooker
3K	8	Electric Fry Kettle
4K	2	Table
5K	2	Table
6K	2	Hood
7K	6	Food Cart, Mobile
8K	2	Water Cooler, Bubbler
9K	2	Table
10K	2	Sink, 2-Compartment
11K	2	Steam Kettle, 30-Gal.
12K	2	Steam Kettle, 40-Gal.
13K	2	Steam Kettle, 60-Gal.
14K	6	Steam Kettle, 80-Gal.
15K	2	Steam Cooker
16K	2	Drip Pan
17K	2	Hood
18K	2	Food Mixing Machine
19K	2	Water Meter
20K	4	Table
21K	4	Cutting Board
22K	1	Table
23K	4	Ingredient Bins, Mobile
24K	1	Table
25K	2	Table
26K	2	Revolving Oven, Electric
		Dishwashing Room
1W	2	Table
2W	2	Sink
3W	2	Sink, 2-Compartment
4W	2	Paper Chute
5W	1	Soiled Dish Table
6W	2	Garbage Grinder
7W	1	Dishwashing Machine
8W	2	Hood
9W	2	Clean Dish Table
10W	2	Tray Conveyor
11W	8	Dish Carrier, Mobile
12W	As Req'd.	Basket Rack
		Pastry Bakery
1B	1	Revolving Oven, Electric
2B	4	Proofing Cabinet, Mobile
3B	1	Sink, 2-Compartment
4B	1	Table
5B	4	Ingredient Bins, Mobile
6B	1	Food Mixing Machine
7B	1	Food Mixing Machine
8B	1	Water Meter
9B	1	Steam Kettle, 80-Gal.
10B	1	Drip Pan
11B	1	Hood
12B	1	Automatic Doughnut Machine, Electric
13B	1	Cabinet
14B	1	Refrigerator, 60 Cu. Ft.
15B	1	Automatic Roll Divider and Rounder
16B	1	Dough Sheeter, Mobile
17B	1	Table
18B	2	Steep Tubs, Mobile
19B	4	Utility Rack, Mobile
20B	7	Bread Storage Truck
		Meat Preparation Room
1M	1	Table
2M	2	Meat Tenderizing Machine
3M	1	Table, Mobile
4M	1	Meat Saw, Electric
5M	1	Sink, 2-Compartment
6M	1	Table
7M	3	Meat Slicing Machine
8M	5	Cutting Boards
9M	1	Table
10M	3	Steep Tub, Mobile
11M	1	Meat Grinding Machine
12M	2	Table
13M	1	Food Moulding Machine
		Vegetable Preparation Room
1V	2	Vegetable Peeling Machine
2V	1	Drip Pan
3V	1	Deep Table
4V	1	Table
5V	1	Sink 2-Compartment
6V	1	Garbage Grinder
7V	2	Vegetable Cutting and Slicing Machine
8V	2	Deep Table
9V	1	Table
10V	3	Steep Tub, Mobile
11V	1	Table
12V	5	Cutting Board
		Pot Washing Room
1P	1	Soiled Pot Table
2P	1	Sink, 3-Compartment
3P	1	Soiled Pot Platform
4P	1	Pot Washing Machine
5P	1	Hood
6P	1	Clean Pot Table
7P	4	Pan Rack
		Ice Making
11	1	Combination Cube and Flake Ice Machine
		Dry and Non-Provisions Storerooms
1X	12	Shelf Unit
1U	21	Refrigerator
		Refrigerators
1U	21	Refrigerator Shelves
2U	2	Raised Platform

production and serving lines in the center with receiving, preparation and storage rooms on three sides, arranged to minimize back-and cross-tracking. By placing kitchen equipment at right angles to the serving lines (with mobile hot and cold to build, than that shown in Diagram I, require one-third less floor space and about three-fourths the manpower.

(continued from page 53)

of potatoes directly into the refrigerator, he would travel only 220 feet. (In the improved new setup—see Diagram II, page 00—the distance is 40 feet as the storage rooms are designed for using carts or wheeled racks.)

For either layout—Diagram I or II—movement from potato storage to peeler would be only 30–40 feet. In the old layout, the distance from peeler to one set of kettles would be 80 feet and 160 feet to the second set.

In the new setup shown in Diagram II, the total back-and-forth movement from peelers to two kettles is 60 feet and from two kettles to mixer, six roundtrips all told, would be 120 feet to get the potatoes mashed in an 80-quart mixer.

In the old layout shown in Diagram I, mashing the potatoes required 300 feet of movement, if you disregarded obtaining seasoning, ingredients, and milk. If the whole mixer load of mashed potatoes were moved directly to the serving line (which in truth is unusual), about 500 feet would have been required in the old layout and 300 in the new.

Add the total distances and you get a minimum of 1,300 feet for the old layout and 560 feet for the new. On an overall food preparation basis, this same general relationship prevails—50 percent of the food movement distance can be eliminated. Not only that—in the new particular setup shown in Diagram II about $100,000 is saved in floor space and 20 percent or more manpower can be dispensed with, to say nothing of improving the quality of the food as served.

Planning the Layout

Essentially, an efficient food-service layout is one where food travels the shortest possible distance from receiving to service and the labor performed involves a minimum of walking and unproductive effort.

Ideally, a short-line production setup is required in which food material can be brought to the worker by automatic means and at optimum working height. Coupled with this setup, proper scheduling, control, and methods are mandatory to keep the men fully occupied during the work shift as well as to have the critical prepared-foods arrive at the serving line as needed.

"Impossible!" you say. And you are probably right. It may be impossible now with our present state of technology in the food service industry. But we can go a long way toward providing what is necessary with the aid of research if we have certain information to start with:

- Type of feeding operation
- Number of persons to be fed and the serving time
- Type of menu
- Available size and shape of space
- Money limitations

Steps in Planning

First, you must decide on what rooms or work areas you will use. In a new submarine, we have a galley or kitchen, scullery-vegetable preparation room, dry storeroom, a chill storeroom, a freeze room, and a mess hall. On a large ship, such as the aircraft carrier Independence, the galley has two serving lines, two sculleries, a vegetable preparation room, many freezers and storerooms, a breakout room, a common bakery for the other messes aboard, a well as a garbage room, meat cutting room, and two galley annexes.

In a large shore mess, we may have a kitchen, vegetable preparation room, meat preparation room, bakery, dining room, scullery, meat refrigerator, meat and vegetable freezers, vegetable refrigerator, root refrigerator, dairy and cooks' refrigerator, dry provisions storeroom, non-provisions storeroom, pot washing room, toilet and locker room, trash room, garbage refrigerator, cleaning gear room, office, compressor room, and receiving platform.

Second, starting with the serving line and the way you want to arrange various serving stations in the line, set up a flow-space diagram for your various work rooms or areas. That is, line up the various storerooms and preparation areas with the kitchen and the part of the serving area they support. This refers particularly to those items prepared during the meal period.

The most important food is meat. Thus you put the meat manufacturing line in first—freezer, chill, butchering, kitchen and the hot part of the serving area.

The next important product is the vegetable; so you line up chill-freeze storage, vegetable preparation room, kitchen and the hot part of the serving line.

The bakery comes third in importance, as it provides the hot breads and also manufactures pies and pastry, cakes and cookies, and possibly bread. Feeding into the bakery should be the dry provisions room, as the main ingredient needed is flour.

Third, having developed your general flow diagram, you must know how much area to allocate to each function.

On analysis of a number of Navy general messes, we have come up with an area allowance

per man subsisted for each space. These area allowances would not be valid for types of feeding establishments other than Navy General Messes as they are predicated upon continuous cafeteria feeding, the menu fed in the Navy, the proportions of fresh and frozen foods used, and the types of equipment we have. The area allowances are not as accurate as we hope to make them in future engineering studies.

Fourth, after the space interrelationship and optimum area of each space have been determined, the jigsaw puzzle can be assembled. Contrary to most puzzle pieces, you can alter their shape so long as the total area of each remains the same. You seek to get them into a shape as nearly square as possible, with the closely related pieces arranged as calculated in the space relationship diagram. Where a space is used more or less evenly in two or more production lines, it should be equally spaced between them.

Some compromises must be made with the straight-line production concept—otherwise the building would be too long. But, insofar as possible, compromises should be limited to the minor production lines and lines where close support of the serving line is not important.

Where various spaces must be fitted into an existing building, your problem can be quite complicated. Yet, if you bear in mind the importance of keeping your main production lines short and reasonably straight and take care to minimize cross-traffic, you will not go too far wrong. In instances where some cross-traffic appears necessary, every effort should be made that it be for a production item where the action will occur when the main production lines are not operating, as for instance the making of salad dressings.

Fifth, with all of our rooms in place, we next need to know what equipment to set in the various spaces thus evolved.

To assist us on shipboard operations, we have drawn up lists of needed equipment for all types of feeding and complements of men encountered in Navy ships. It makes for quite a weighty compendium. In places where we have not had enough experience to draw up a list of necessary equipment, we do a capacity study. We determine the oven area and height needed, hot plate area, deep-fat fryer capacity, pot sizes and numbers, mixer capacity, and similar data.

For a shore base mess, we follow the same procedure but leave out the various shipboard considerations, such as allowing an extra 25 percent capacity in steam-jacketed kettles to provide slosh room when ships are in motion.

At the outset, in planning for equipment, you must consider the recipes to be used, and the operational procedures to be followed. In our case, we use the menus in the Navy Menu Service, the recipes in the Navy Recipe Service, and a set of desirable food production procedures that we ourselves established. Some of *these* procedures include:

- Maximum holding time for foods on serving line —20 minutes.
- Griddled food served directly from griddle to tray.
- Feed crew in 1 hour.
- Cooks furnished at rate of one to 60 men.
- Coffee held not more than 30 minutes.
- Meat roasted in staggered batches so that it doesn't stand over 15 minutes before service.
- Vegetables prepared in small batches as needed on serving line.

Using this information, we draw up charts to show the demands on all equipment throughout the 24-hour day and determine how much capacity we need to fill 90 percent of demand. Cookies and turkey require equipment that is out of reason so far as oven area requirement and oven height. So we require the cooks to work out expedients as they always have in the past but now to a lesser extent.

It is important from a food movement standpoint to have only the exact equipment needed and no more. Excess equipment adds to food moving distances.

Sixth, knowing the equipment that is to go into each kitchen space, the next step is to arrange this equipment so that it will provide smooth work flow within the space.

While a food service consultant can sit down and blithely toss off a standard arrangement for a butcher shop, bakery, or kitchen, it is obvious that this standard arrangement would be like having one width of shoe for everyone to wear—for some people it is going to bind in certain spots and for others it is going to be too loose.

Every type of feeding operation, whether it be a hamburger joint or plush restaurant, has certain critical pieces of equipment that must be placed judiciously and properly supported by auxiliary equipment. This is essential for the operator to realize the fullest potential of the critical equipment and his own labor and skill.

As an example, let us visit the before-noted hamburger joint. All too many of these eating places are operated long hours by a lone individual. The critical piece of this worker's equipment is his griddle. His supporting equipment is probably a refrigerator, dish shelf, cutting board, and bun drawer. These items are often distributed along the back bar, so that when a customer places an order the cook must turn his back to perform the various motions in preparing the hamburger. If he turns to set up a place mat or draw water, he must turn his back on the cooking food. This arrangement is not desirable.

The point of the above example is obvious: the most critical piece of equipment should be placed where the cook can use it best—in the serving counter. Then he can wait on his customer and still keep an eye on the cooking product.

Determining Work Patterns

With a stop watch, a tape measure and a clipboard, an engineer can determine what are the important pieces of equipment and the interrelated equipment. He quickly determines the various work stations—refrigerator, sink, coffee-maker, grill, juice machine, and the like, giving each a number or letter.

Then as the cook moves about at his work, the engineer notes his movement from one piece of equipment to another and the length of time he spends in front of each. At the end of several days, the engineer can total up all such information, together with the distances between the various work stations, and come up with the following:

- The important equipment interrelationships.
- The equipment that is used the greatest amount of the time.
- The distance the cook must travel to perform each task and for a day's total work.

This information enables the engineer to place the most-used equipment in the best locations and arrange the satellite equipment to best support the key equipment in the order of use and close enough together to avoid wasteful walking. This will also help ensure good food flow.

To use our submarine study again as an example, our industrial engineering study showed that our most important interrelationships in 16 days of cooking operations and 16 nights of baking operations were: griddle-worktable, ingredient bins-worktable, table-sink, mixer-table, range top-worktable, sink-worktable, and range top-sink. It was found that the cook spent 92 percent of his time at a worktable, griddle, sink, range top, and mixer. Thus, these pieces of equipment draw first considerations for placement.

I am a strong advocate of placing most final preparation equipment in or as close to the serving line as possible. So our griddle, the most-used piece of cooking equipment, was placed next to the serving line with worktable space next to it. (The griddle-worktable is our most important relationship.) The next piece of important cooking equipment is the hot-top. This equipment was placed next to the griddle. And as a worktable is the hot-top's most important piece of related equipment, we placed one next to it.

Now another important relationship with the hot-top is the sink. (To get water from the pots.) We placed a water source over the hot-top. The secondary use of the sink was to drain water from the cooked vegetables before placing them on the serving line. So we placed a sink between the hot-top and the serving line.

The other important cooking devices include the ovens and the fryer. These were placed below the more important cooking equipment.

As you can see, we have so far disregarded a number of our important interrelationships—ingredient bins, worktable, mixer-sink, and mixer-table. These, we found, were mainly the baking functions that once were clustered around the cooking area as the baking was done at night using much of the cooking equipment. This duality of use and shortage of capacity obviated the possibility of preparing hot breads for meals, although they were important for morale of the crew.

In the submarine of the future, we wanted to lose no opportunity to improve the morale-raising qualities of our feeding system. For this reason, we decided to set up a baking center that would enable a baker to be working at the same time as the cook who was preparing the basic meal. Thus we could have hot breads.

The baker's table was the central item and it must be supported by bins, mixer, sink, can opener, condiment rack, utensil storage, proof box, and oven. For efficiency, the bins should have been placed over the baker's table. But hull curvature did not permit it, so they were set up as drawers close to the table-top mixer. For flow, the mixer should have been set up on the left side of the baker's table. But since the mixer must also be used for considerable periods by the cook's helper

to run vegetable cutting attachments, it was placed equidistant between the two work stations. The infrequent, short-time function of potato whipping had to be lived with.

The need for a close association with the sink was obviated by placing a water source over the mixer. The need for ready access to the spices was met by duplicating the spices in the cook's area and in the baker's area. Similarly, hand tools used by both were duplicated and the can opener used by both the cook and baker was placed equidistant between them and close to the sink. The oven used by both was arranged so that the cook would use one deck and the baker the other.

I won't go into all the ramifications of this setup, but where a cook formerly had a hard time putting out the bare essentials of a meal for 75–85 men, the ballistic-missile submarine, George Washington, recently fed 300 while launching its first polaris missile. The new layout and equipment reduced preparation time between 20–25 percent and cook's movement by 50 percent. It permitted preparation of a much greater variety of high-morale foodstuffs with less labor.

Substantial Savings

In large feeding operations, great reductions in floor space, cost, and personnel have been possible. For instance, in the 2,000-man facility shown in Diagram II, a saving of $100,000 was possible in floor space alone. In the plans for the Great Lakes food service operation, savings of 35 percent in floor space, 23 percent in manpower, and over $800,000 in construction costs can be made. Most important, food movement distances were reduced by 50 percent.

Factors Governing Efficient Work Flow

While it would be impossible to cover all the factors that must be considered in efficient work flow, I will mention a few, repeating some that I have already noted:

Receiving and Storage

- Receiving should be as close to food service as possible.
- Direct access from the receiving platform to major storage space should be arranged if possible.
- Gross trimming of vegetables, placing them on wheeled racks, at receiving station is desirable so that they can be wheeled into the refrigerator and thence to the vegetable preparation room without rehandling.
- Scales with direct reading dials or weight printing are desirable on the receiving platform for checking food materials being received and apportioning them in productions lots.

Preparation

- Storerooms, particularly refrigerators, should open directly into preparation areas they support. See-through doors make it possible to note the contents and personnel within without unnecessary door opening.
- All tables and transports should be set up so that a minimum of lifting is required and product movement is carried out by wheels, gravity, sliding, rolling, or conveyor. All foods should be kept close to waist height during processing.
- Back-and-forth movement should be reduced to an absolute minimum.
- Intermediate storage should be provided to keep foods cold while they are being assembled for the next preparation step. This can be done in refrigerated carts or wheeled boxes, or pass-through refrigerators. They should be placed to avoid backtracking.

Kitchen Layout

- Contrary to many designers, I advocate kitchen equipment being placed at right angles to the serving equipment so that a minimum of walk-around is necessary.
- Areas where most handwork is accomplished should be on the left side of the aisle with little-attended equipment on the right.
- Griddles, fryers, and kettles should have space beside them for ingredients and cooked material. Ovens should have table space preferably in front of them to speed loading and provide quick-set-down for pans full of hot grease and meat. Where table space beside kettles is not feasible hang-on shelves should be provided for ingredients and serving pans.
- I am a strong advocate of minimal aisle widths of 36 inches where work is performed on one side of the aisle; 42 inches where work is performed on both sides; and 48 inches when people must pass behind the workers. Slightly more space is left when carts must pass. At any rate, the cook should not have to work back and forth across an aisle except in front of the ovens.

Equipment and Utensils

- Storage for utensils should be available at points of first usage, and small pieces of equipment and condiments should be duplicated at points of most frequent use. Storage should be between 2 feet and 5 feet from the floor with the most frequently used item being placed the highest.
- A large piece of equipment used in more than one location should be on wheels so that it can be wheeled to the job and fitted into the production line.

- Pans should be standardized so that they will fit into the refrigerator, oven, transport, and steam table, with equal facility and without changing food material from pan to pan.

Serving Lines

- All equipment in serving lines, whether it be for dishes, coffee, milk, or what-have-you, should be refillable from the service side of the counter without interrupting serving lines.
- Self-bussing and departure from the dining room should be carried out at locations that do not interfere with serving line traffic.

Who Dines Out and Why?

A market survey of restaurant patrons, made in 1958, was published last summer by the Chase & Sanborn Division of Standard Brands.* The survey, made in conjunction with the American Restaurant Association, sought answers to such questions as: Who dines out? Who makes the suggestion? Where do they go? What do they eat? And how much do they spend?

The survey was conducted by J. Walter Thompson, advertising and market research agency, which for over seventeen years has made use of a Consumer Research Panel to probe the public's buying habits.

General conclusions about the potential market, as developed from the survey, are:

1. Of the families studied, 50 percent would like to eat out more often than they do.
2. About 56 percent of the families bring their children with them when they do eat out.
3. One out of every three workers carries his lunch from home.

But persons interested in such market analyses would be well advised to obtain a copy of the survey and study it carefully to obtain the specific details. When the survey figures are broken down according to income group, age, income, size of city, and region of the country a somewhat different marketing picture emerges.

For example (and this will come as no surprise to food service operators), families whose incomes are above $7,000 are the ones most likely to dine out (main meal of the day) once or more a month. The wife is the prime mover in making the suggestion. And most families dine out for a "special occasion" at a hotel or restaurant providing table service. A "fraction over two persons" (parents and/or relatives and friends) constitute the party's size.

Weekend days (Sunday, Saturday, Friday in this order) are the most popular days to dine out, while Monday and Tuesday rank lowest. Beef is first choice for the main dish (especially with men) with fowl the runner-up. (The ladies prefer fish to pork.) Ice cream is the first choice for dessert with pie (usually apple) second—and pie *with* ice cream (not at all surprising in view of the two favorites), was third. What is surprising is that one third chose no dessert. The average check for two ranged from $5.85 in a restaurant to $6.52 in a hotel dining room.

What patrons look for when they dine out may be explained in that wives are the prime suggestors: "cleanliness" ranked first, with "good wholesome food" a close second, followed by good "service," and "attractive surroundings and atmosphere." Price, location, and "restful, quiet place" were near the bottom of the list.

Families dining out for "convenience"—before or after shopping, the movies, or perhaps a pleasure drive—are more likely to choose a cafeteria, diner, or drive-in. But their food choices are much the same as those reported for table-service restaurants, and the check for two is lower—about $2.50.

This consumer panel, according to J. Walter Thompson's report, includes "a sufficiently large number of typical American families to provide a true and representative cross section of the practices and attitudes of the public as a whole." The panel families were selected so as to proportion the panel to United States census figures on education, city size, region of the country, size of family, age, and income.

The market survey was made in this manner: An especially prepared diary was furnished to each family for recording the meals eaten each day outside the home. Information was also sought by means of a questionnaire as to the reasons governing their decisions to eat out, or not to, where they eat if they do go out, and how much they spend. These two records were then analyzed carefully by qualified statisticians.

Many families in the "market potential"—the 50 percent who would like to eat out more than they do—are young city families in the $5,000-or-less income bracket who have children under five years of age. Runners-up were families in the same income bracket with children between six and eleven years of age.

Families who could afford to eat out more than they do as well as those who don't take their children with them when they dine out, gave as their reasons: "They can relax away from the children."

So far as lunches eaten away from home are concerned, the survey panel indicated that the male white-collar patron who lives in a city and earns $7,000 a year or more is most likely to lunch at a restaurant or a hotel. (This group, it should be pointed out, includes the "expense account" and credit-card holding executives who do the most entertaining.)

Lower echelon white-collar workers, particularly women workers, are more likely to lunch in a company-operated cafeteria, at a lunch counter, or bring their lunch from home than to eat in a hotel or restaurant. Most blue-collar workers who have lunch away from home also eat in a company cafeteria or bring their lunch from home.

If these findings seem all too familiar to the reader, this would tend to support rather than question the survey's validity. The greatest value in the study lies in its detailed breakdowns given by family size, age, income, and location.

*"Consumer Panel Report on Dining Out Habits and Attitudes," Standard Brands, 625 Madison Avenue, New York City 22.

Dish Pantry Design: *An Economic Solution*

All too often traditional design methods are not the most economic, Payroll, other operating costs, and overhead should be carefully evaluated to choose the method that will cost the least in the long run.

Nicholous F. Schneider

Traditional methods of design for the dish pantry of a food service operation all too often do not lead to the most economic solution for the owner or operator.

For this reason, an article is in order to present the several alternative methods from which food service operators may choose. This article will further evaluate the costs associated in the several alternative methods and then present a method which would involve the lowest total annual cost when both owning and operating costs are taken into consideration.

This problem can best be approached by considering a "soiled dish arrrival schedule"—that is, the number of soiled dishes arriving at the dish pantry for each time unit in the period being investigated. By applying several factors (which will be discussed later on) the various alternatives, their advantages and disadvantages, can be ascertained. When the cost factors involved in each of these alternative methods are analyzed, it is possible to determine the costs associated with adopting that particular solution.

Before discussing a typical example, a short description of the various machines available and the dishwashing cost elements is in order.

Dishwashing Machines

Dishwashing machines can be classified into two categories, according to the method of contact between dish and water. These two classifications are 1) immersion and 2) spray.

Immersion-Type Dishwashers

In the immersion type of dishwasher, there is full and intimate contact betwen the dishes and a water bath. Relative motion between the dishes and water supplied by a hand water pump, a rack agitation mechanism, or other means, helps to loosen and remove soil in the wash compartment. A total of from two to four compartments is used.

While this method of washing dishes is often used today (since it includes hand dishwashing sinks), it is, in general, less desirable than the spray type of dishwasher because of the greater reliance which must be placed on the operator —who is far from infallible. Its application is generally limited to small installations.

The future may bring a revival of interest in this type of dishwasher. Ultrasonic cleaning devices used in hospitals today employ this general principle. So do some test model dishwashers.

Spray-Type Dishwashing Machines

In many localities, the spray-type dishwashing machines must be approved by the N.S.F. (National Sanitation Foundation). This organization's Standard No. 3,[1] describes in great detail the materials, construction, design, temperatures, pressures, volume and spray pattern for wash and rinse water recommended for this type of machine.

These spray-type dishwashers may be analyzed from any one of several viewpoints. The two most common approaches are:

1. Number of tanks.
2. Method of moving the dishes through the machine.

The singe tank dishwasher may be of the hood type, curtain, door, rack conveyor or peg conveyor (flight-type) variety. In all of these machines (except the last) dishes are first placed in racks, and these racks are then placed into the machine.

The hood-type dishwasher can be installed in a dish table arrangement or under a counter. The hood, curtain, and door-type require that the racks be loaded and unloaded manually into and from the dishwasher.

Multi-tank machines may have anywhere from two to four tanks. The three types of tanks available are:

[1] Available from the National Sanitation Foundation, Ann Arbor, Michigan, at a cost of 50 cents.

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1. Recirculating pre-wash or scrap tank
2. Wash tank
3. Rinse tank

In most cases, two-tank machines consist of wash and rinse tanks, though a few machines are available with a scrap and a wash tank. Three-tank dishwashers contain scrapping, washing, and rinse tanks. The few four tank machines on the market use a second extra rinse tank.

In general, these machines are available as either a rack or peg conveyor. There are also available a few machines of the flat-belt conveyor variety.

Instead of a recirculating prewash or scrapping tank, some machines offer a fresh-water prewash. This is not defined as a "tank"—rather, as a "compartment," much like the final or curtain rinse which it closely resembles. This device is less desirable since it provides a lesser volume of water in the scrapping operation—about 6 g.p.m. versus 100 g.p.m. The soil removing ability of a fresh-water scrapper is generally conceded to be about 50 percent versus 80 percent for the recirculating. For a fresh water unit, additional water and water heating costs are incurred. The overflow from the final rinse or the wash tank is typically used, sometimes in conjunction with additional cold water, for the recirculating pre-wash. The only cost associated with a recirculating pre-wash is for this small amount of cold water and a negligible amount of electricity for the pump. This is much less than the corresponding water and heating cost for the fresh water unit.

Various other optional equipment is available for the dish machine, including temperature and time-regulating devices. Detergent dispensers which can maintain the proper concentration with no human effort are highly recommended. These are usually lent by the detergent supplier.

Unless adequate time (about 1 minute), and therefore distance, are allowed at the "clean end" of the dish machine, the drying will not be completed when the dishes are removed. Even with the addition of a rinse–drying agent which can reduce the drying time by 50 percent, a drying problem will be noted with plastic items.

The new, continuous-rack conveyors, available under various trade names, are an attempt to combine the advantages of a flight-type machine (no racks) with the advantages of a rack-type machine (less labor being required for operations where fewer than four men are needed). Though these machines can be loaded successfully by service personnel in some cases, a dish-loading area under the control of a "loader" is often more desirable. Further discussion of this machine will be omitted as an article of great length could easily be developed simply to compare this machine with the conventional rack conveyors or flight-type machines.

The Dish Maintenance Cycle

The dish maintenance or dish-washing cycle consists of a series of steps which must be followed in each operation. Some of the steps listed below are required; others can be varied. These are the typical steps:

1. Bussing dishes from table to dish pantry.
2. Pre-sorting into dish, silver, and glass classifications by waiter, busboy, etc.
3. Scrapping of dishes.
4. Sorting and stacking of dishes.
5. Loading dishes into racks.
6. Pre-flushing with water.
7. Loading racks into the machine.
8. Washing, rinsing, etc., carried out in the machine.
9. Unloading racks or conveyor.
10. Stacking into appropriate divisions.
11. Transporting to the serving and/or preparation departments.

From this point, dishes can be considered in "use." The cycle is then repeated. In actual practice, storage may take place almost anywhere in the cycle. As these storage periods are needed to provide an economic operation, they must be considered in design.

For the purposes of our example, we will consider the dishwashing department labor for Steps 3–10 as given above. These steps can be analyzed for the typical food service operation, inasmuch as the time required per piece is relatively similar in most food service installations. Step 11, on the other hand, cannot be so analyzed due to wide variations in design, layout, and operation.

From a study of several dishwashing operations in restaurants with average plate service, it has been possible to determine the typical operator rates for the performance of the aforementioned steps. For ease in applying these rates, in this article they are expressed in "standard pieces per hour." It should be noted that:

1. Sufficient work be available so that the job is operator, not work limited.
2. These were *not* the maximum rates observed and therefore should be capable of being approached in a well-designed installation.
3. No attempt was made to vary the layout to determine the arrangement which yielded the maximum rate.
4. The overall operator rate seems to depend on the pieces required per person and the number of different pieces in use.
5. An overall rate, considering all pieces which are handled, is assigned for each operation.

For example, though loading of glass racks was done by service personnel during the pre-sorting operation, it is credited to the dish maintenance personnel. In like fashion, variable scraping time is required by the various pieces. Some require none, and this reduces the average time required per piece.

TABLE I

Operator Rates for the Various Dish Maintenance Operations

Operation	*Operation Rate Pieces/Manhour*
1. Scrap, Sort, Stack	2,150
2. Load including obtaining racks and loading	5,600
3. Unload racks and stack dishes including disposing of racks	2,700
Overall for Above Operations	1,000

A peg conveyor may enable a 10 to 20 percent higher overall operation rate in pieces-per-manhour.

There are various machines which permit scrapping to be performed to a large extent by the dish machine. These machines should increase the operator rate for operation I and hence increase the overall rate.

The continuous rack conveyor should permit loading and unloading at the rate indicated above. If service personnel do the racking, not usually advised, there the only operations performed by the dish crew are unloading, sorting and stacking. This can probably be carried on at a rate of 3,000 or more pieces per hour.

Flight-type machines suffer from the drawback that at least two men are required for operation, except in rare and usually inefficient operations. Even with two men, the loading end is unable to scrap and load as fast as the one unloader can remove the pieces. Hence, the problem of effective labor utilization enters the picture unless at least two are at the soiled end.

Dishwashing Costs

The various costs associated with the dishwashing operation that will be considered, their bases and typical figures are listed below.

1. *Labor Cost*: Assume $1/hr. plus 25% fringe benefits, etc. A total of $1.25/labor hour.
2. *Depreciation of the Dish Machine*: Assume write-off in ten years, consider cost of interest—a total of 15% of the installed cost per year.
3. *Maintenance of the Dish Machine*: Very difficult to assess accurately. Assume 10% of the installed cost per year.
4. *Detergent Cost*: Depends on the cost/pound required concentration, etc. Assume a .25% concentration and 22¢/lb. The cost then depends on the amount of fresh water added to the wash tank. For 2 gpm., typical of multi-tank machines, and operation throughout an hour—55¢/hr. For a single tank machine with rinse spray diverter, we have 3 gpm. The cost of operating at 100% of capacity is then 82¢/hr.
5. *Rinse Drying Agent Cost*: Depends on the cost per unit of the agent, required concentration, etc. For 4 gpm., typical of many multi-tank machines, and operation throughout an hour—60¢/hr. For a single tank machine using 6.5 gpm., the cost of operating at 100% of capacity is 98¢/hr.
6. *Water Cost*: Typically the cost of water can be neglected or combined with the heating cost, but the cost of heating to 180° for the final rinse and wash tank addition may be significant. The cost varies greatly depending on cost of utilities and efficiency of operation. The initial cost, maintenance, etc., of the heating equipment will be neglected. For 7 gpm. of water usage and a reasonably efficient plant using a low cost fuel, and including water, the cost might be $1/hr. for continuous operation. This cost, however, may vary greatly in different operations.
7. *Tank Temperature Maintenance Cost*: This may vary greatly, depending on many factors. The most important are the capacity of the tanks and the usage of the machine and the

heat source used. We will assume this cost to be 15¢/hr./tank though it may vary from 5¢ to $1/hour.

8. *Space Cost*: Including the depreciation, heat, light, power and other utilities. Often an actual rental figure in dollars/sq. foot per year is available. Usually an estimate must be made. A figure of $5/sq. foot/year is assumed. In some cases, of space utilization, a cost of profit-lost must be assigned. An analysis of the profitability per square foot is required in such cases. No profit-lost "cost" will be assumed in this example.
9. *Dish Storage Cost*: For dishes which arrive but cannot be immediately washed. An analysis of the equipment used to store dishes must be made.

If dishes are handled at the maximum rate of arrival, then storage is not necessary prior to the scrapping of dishes. It can be assumed that if a dish pantry is designed to handle the peak hourly-arrival-rate, then no storage space is necessary. This is not exactly true, as dish arrival during the peak period is not uniform. There are peaks and valleys during the peak hour.

The dishes which must be stored under a spread-work-load method of washing is the maximum of the arithmetic sum of "Dishes Arrived—Dishes Washed" over the dishwashing period. The cost of required dish storage is a function of space used and storage device. Anything—from additional soiled dish-table space to portable trucks for 18" x 26" bun pans capable of holding 10 or more trays—might be considered. The designer of the equipment has ultimate control over this cost. Assuming reasonable use of vertical space and an "average" cost storage device whose life is 5 years, the yearly cost providing storage for each piece is about 20¢/yr.

An Example of Dish Pantry Design

Conditions:

1. A 200-seat restaurant with additional facilities for banquets for 250 persons. A total of 400 meals are expected in the dining room and the banquet facilities expect no turnover.
2. The length of the meal period is approximately three hours in the case of the dining room.
3. An average of 17 pieces, including china, glass and silver, is required per meal served.
4. Employee dishes, glasses and china are received from 5:30 to 6:00 p.m. and consist of 500 pieces.
5. The soiled dish arrival schedule given next is determined to be that expected by management:

Time	*Pieces That Arrive*	
5:30-6:00	500	
6:00-6:30	1,000	
6:30-7:00	1,200	
7:00-7:30	3,200	(*including banquet room*)
7:30-8:00	3,600	(*including banquet room*)
8:00-8:30	1,200	
8:30-9:00	850	
Total Pieces	11,550	

It is desired to determine the solution which yields the lowest cost and to approximate the yearly cost of operation of the dish pantry.

It should be noted that one of two general approaches to the problem must now be made.

1. Design the dish pantry, equipment and staffing, to handle the pieces as they arrive, the peak hourly method, abbreviated to P.H. in the subsequent discussion.
2. Design the dish pantry so that all pieces will be cleaned within some longer time, still undetermined: The spread work load method, abbreviated to S.W.L. in the subsequent discussion.

It should be noted that design by Alternative 1 (*see above*) requires a dish pantry, machine, labor, etc., capable of handling 6,800 pieces per hour, the maximum hourly-rate-of-arrival from 7 to 8 o'clock.

For Alternative 2, the dish-pantry design is probably dependent upon the time which one shift of employees would work. In other words, allowing for other employee duties, machine start up, shut down, daily maintenance, etc., a total dishwashing period of seven hours might be assumed. An average rate of dish maintenance of 1,650 pieces-per-hour would then suffice for the dish-pantry design (11,550 pieces/7 hrs. = 1,650 pieces/hour).

A tabulation of the costs associated with these alternate methods of dish maintenance can now be made. *(See Table II, page 65.)*

Practical Aspects of the Solution

From Table II, it can be seen that the spread-work-load method of dish maintenance is, by far, the preferred method. It is, however, doubted if any concern would design solely for the peak hourly arrival rate. Rarely does a 200-seat restaurant with banquet room for 200 persons have a dish pantry operated by seven persons. Nonetheless, these installations expect an extremely small dish table to take the "load" which employees cannot. This is sheer folly, unless provision is made for the storage of soiled dishes. All too often, this provision is neglected.

This dish pantry installation in the Carrier Corporation's employee cafeteria in Syracuse permits one man to perform the dish maintenance for up to 500 meals served in three and one-half hours. The tray-storage area used in conjunction with this installation is shown in the background. The clean-dish table (extending on from the dish machine's right) is designed to permit a long run-out of racks.

TABLE II

Yearly Costs of Dish Maintenance by Alternatives

	Cost per year *	
Cost	*Peak Hourly (P.H.)*	*Spread Work Load (S.W.L.)*
1. Labor	$25,500	$ 7,300
2. Depreciation	820	450
3. Maintenance	550	300
4. Detergent	300	2,050
5. Rinse Dry Agent	325	2,420
6. Rinse Water & Heating	545	2,470
7. Tank Temperature Maintenance	385	385
8. Space Cost	1,250	425
9. Dish Storage	0	1,040
10. Breakage (should be the same with either—a managed cost)		
Total Yearly Costs	29,675	16,840

* *See Addenda for calculations.*

The picture shows the "storage area" of a soiled-dish table which successfully permits one man to perform the dish maintenance operation in a three and one-half hour period for up to 500 meals served at the Carrier Corporation in Syracuse, New York. The clean dish table is designed to permit a long run out of racks to reduce the number of trips and handwashings between the two ends of the machine.

As more convenience foods are utilized in food service installations, there are fewer "odd jobs" which can be assigned to the dish machine crew. Management cannot, in many cases, simply assume that additional work will be found for the idle dish machine crew. Union restrictions, in some cases, limit the other work which may be performed by the various crews in a kitchen.

Specialization of labor has permitted management in other industries to develop a highly skilled and highly paid worker who has high productivity. The same could also be applied to such a situation. While disadvantages are associated with over-specialization, it is doubtful that such would be the case here.

There is a growing tendency towards selection of a dish machine—not only by its capacity but also by its construction—especially with regard to the number of tanks in the machine. It should be noted that selection of a two-tank machine would decrease the detergent, rinse dry agent, rinse water, and rinse water heating costs for the previous example because of the reduced equivalent hours of operation with a two-tank rack-conveyor machine. The additional costs would be associated with the depreciation, maintenance and extra space taken up by the machine.

It is hoped that this example and discussion will lead to a more economic solution of this often times neglected part of kitchen equipment selection and design.

Addenda
Calculation of Costs

Labor: (maximum number of men) (hours/day) (salary/hour) (operation days/year).

P.H. $=7 \times 8 \times 1.25 \times 365 = \$25{,}500$

S.W.L. $=2 \times 8 \times 1.25 \times 365 = 7{,}300$

Depreciation: (.15) (Installed cost)

P.H.: Requires a machine capacity of 6,800 pieces/hr when operating. It is typical to assume operation at 60-80% of peak capacity when selecting a machine. Assuming 70%, the required capacity is 9,700 pieces/hr. Installed cost=$5,500 for two tank rack conveyor capable of washing 11,000 pieces/hour.
Depreciation=(.15) (5,500)=$820.

S.W.L.: Requires a machine capacity of 1,700 pieces/hr when operating. Assuming operation at 70% of capacity; the capacity required is 2,430 pieces/hr. Installed cost is $3,000 for a one-tank rack conveyor.
Depreciation=(.15) (3,000)=$450.

Maintenance: (.10) (installed cost)

P.H. $=(.10)(5{,}500) = \$550$/year

S.W.L. $=(.10)(3{,}000) = \$300$

Detergent: (Cost/hour) (Equivalent hours/day).* (Days/year)

P.H. $= (.55)\dfrac{(11{,}550)}{(.7 \times 11{,}000)}(365) = \$\ 300$

S.W.L. $= (.82)\dfrac{(11{,}550)}{(.7 \times 2{,}430)}(365) = \$2{,}050$

Rinse Dry Agent: (cost/hour) (equivalent hours/day) (days/year)

P.H. $= (.60)\dfrac{(11{,}550)}{(.7 \times 11{,}000)}(365) = \$\ 325$

S.W.L. $= (.98)\dfrac{(11{,}550)}{(.7 \times 2{,}430)}(365) = \$2{,}420$

Rinse Water and Rinse Heating: (cost/hr) (equivalent hrs/day) (days/yr)

P.H. $= (1.00)\dfrac{(11{,}550)}{(.7 \times 11{,}000)}(365) = \$\ 545$

S.W.L. $= (1.00)\dfrac{(11{,}550)}{(.7 \times 2{,}430)}(365) = \$2{,}470$

Tank Temperature Maintenance: (Cost/Hour/Tank) (Number of tanks) (Total Hours of Machine Usage/day) (Days/Yr)

P.H. $= (.15)\ (2)\ (3.5)\ (365) = \$385$

S.W.L. $= (.15)\ (1)\ (7)\ (365) = \$385$

Space Cost: (cost of machine space and work space) ($5/square foot) (3 x machine area + 25 x number of men)

P.H. $= 5(250) = 1{,}250$

S.W.L. $= 5(85) = 425$

Dish Storage: (Cost per piece to be stored) (Number of pieces stored)

P.H. =0 by definition of P.H.

S.W.L.: Since the dishwashing operation is limited to only 2 x 1,000 pieces per hour, all pieces above 2,000 per hour or 1,000 per ½ hour must be stockpiled. From the Soiled-Dish-Arrival Schedule, this condition holds true from 6:30 until 8:30 during which time 9,200 dishes arrive but only 4,000 can be processed. Storage must be provided for 5,200 pieces.
Cost=(.20) (5,200)=$1,040.

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* The equivalent hours of machine operation at 70 percent of capacity considers the fact that all racks are not fully loaded and that the machine is, on the average, used at only 70 percent of capacity while the operating costs are based on total capacity during machine operation.

For Rack Conveyors = $\dfrac{\text{Total Dishes}}{.7 \times \text{Capacity Hour}}$

For Flight Type = Total Hours of Conveyor Operation, as the rinse, detergent, etc., are added whenever the belt is turned on, not only when a rack opens the final rinse line.

It wasn't until the nineteenth century that world powers possessed sufficient gold, silver, and copper to produce coins in variety and vast quantity.

Translations from the British

Merchant banking–Investment and commercial banking
Hire-Purchase–Installment credit
Unit trust–Mutual fund
Cheque–Bank check
Quid–2.81 bucks

New England Mutual Life Insurance Co.'s

Dishroom Renovation

*by Nathan Sharaf**

Dishroom renovation for the employees' cafeteria of the New England Mutual Life Insurance Co. in Boston had been under consideration for some time before a brand new installation was made in early 1961. The old system was proving inadequate because a rising number of the company's employees—about 1,400 and most of them women—were eating lunch daily in the cafeteria.

In installing a new system the aim was to do more than simply purchase new pieces of equipment. Rather, a system was sought that would reduce operating costs, upgrade working conditions, and moreover greatly improve the attractiveness of the dining room and dishwashing areas.

During the planning stages, numerous visits were made to view conventional dishwashing operations and to make a careful study of the advantages of each. Every operation visited had desirable features but occasional bottlenecks, double handling, and confusion were also observed. These undesirable conditions, it was felt, might be avoided by departing to some extent from the use of so-called "standard equipment and procedures." Thus the idea of moving into untried methods was conceived. After carefully considering the possible benefits versus the possible risks, it was decided to proceed with the renovation on the basis of departing from generally accepted standards wherever worthwhile benefits could be gained.

Self-Bussing

Dishhandling actually begins with the moment a patron finishes his meal. Thus the problem of designing a better system was begun from this point.

For years dishes had been removed from the tables by bus-girls with carts, who then transported them to the dishwashing area in trucks. This procedure was slow, expensive, and at times unsightly. Having the patrons bus their own dishes onto a conveyor belt seemed the logical first step. But consideration had to be given as to how the change over could be made with the least confusion and the minimum of customer complaint. Self-bussing required that the patrons eat lunch without removing the dishes from their tray and then carry their trays over to the conveyor belt. Would they object? And since the trays would cover most of the table tops, what could the lady patrons do with their purses?

To help bring about a successful transition, attractive new trays were purchased of a size slightly larger than the previous ones. Hanger hooks were screwed under the table ends to provide a place for the girls to hang their pocketbooks. When the conveyor belt and new dishwashing area were completed, the day for the change-over arrived. Miss Elizabeth Bassett, cafeteria manager, and her assistant, Mrs. Wanda Wassell carefully planned every detail of the transition. Flowers were placed on every table, a new decorative touch, and a table-tent message displayed was worded as follows:

"We thank you all for your forbearance
and hope you will like our new appearance.

Under the table and to the right,
for the ladies' convenience (out of sight)

We have installed a handy hook
on which to hang your pocketbook.

The trays, you will note, are bigger too
and sterilized each time for you.

Please eat your luncheon from your tray,
and as you are leaving on your way
Place it on the conveyor line under the
"Please Leave Trays Here" sign.

Thank you

* Mr. Sharaf, president of Sharaf's Inc. (Boston, Mass.) has been affiliated with the food service industry for thirty-two years. He operates a chain of eight restaurants in the Metropolitan Boston Area and is currently the president of the Massachusetts Restaurant Association.

Fig. 1. *Conveyor belt brings soiled dishes on trays from the dining area at rear right. A stream of cold water runs through the trough at the stripping table's front and washes refuse into disposal unit. Trays continue on the conveyor to self-lowering dispenser at left. Note shelves above stripping table for overflow during peak periods.*

The transition to self-bussing was accomplished without a ripple. There wasn't a single report to indicate that patrons resented the chore of carrying their own dishes and tray to the conveyor belt. In fact, numerous compliments were received and even now (months after the transition) patrons often comment on the orderliness and efficiency of the new method. They appreciate knowing that each tray is sterilized the same as their dishes and silverware.

Patrons appreciate the fact that they no longer need stand, tray in hand, waiting for a dining room employee to clear the table of the previous occupants' dishes. While there is nothing new in this practice of self-bussing, what is noteworthy was the smooth transition, accomplished without incident. This was primarily due to careful planning of minute details.

Dishwashing Area

The second consideration was to provide a neat, orderly, efficient dishwashing area—one which the patrons could observe whenever they cared to do so. Careful study was given to conventional soiled dishtables with various types of scrap blocks, sinks, refuse cans on rollers, and the like. Finally it was decided, that in order to keep noise, confusion, and breakage to a bare minimum, as well as to provide the best working conditions, to install an especially designed stripping table. (*See Fig. 1.*)

Dishes enter from the dining room on the conveyor belt and three employees perform the tray-breakdown operation. The first person removes the cups, other hollow-ware, and paper. The dishes are removed at the second work station and the silver at the third. Upon completion of the

Fig. 2. *The conveyor-type dish machine is parallel to the stripping table.*

Fig. 3. *The dish machine traverses through separate pre-wash, wash, power-rinse, and final sterilizing compartments.*

scrapping operation, trays move over the short section of the roller conveyor onto a self-lowering dispenser, which, in this case, is used to depot the soiled trays.

The food soil and paper, conveniently deposited in the trough shown in Fig. 1, are washed away by a stream of cold water to a device at the table's end where they are automatically shredded, the moisture extracted, and the residue deposited into a disposable container.

The goal was to operate the conveyor belt at a speed sufficient to insure that patrons in the dining room need not wait in line to deposit their trays on the belt, even though large groups may complete their lunch at the same time. When operating the conveyor belt at this speed, it was recognized that dishes could sometimes arrive in the dishwashing area faster than the employees could possibly handle them. To meet this contingency, three-tier shelving was provided over the conveyor to absorb this overload. This shelving, although seldom needed, assures an uninterrupted flow of dishes from the dining area. When the occasion arises to make use of these shelves, their value can be measured in the savings from breakage. Breakage generally results from having dishes arrive at any dishwashing area at a rate faster than employees can process them.

Dishwashing System

Running parallel to the stripping table is a horizontal conveyor dishwashing system. (*See Fig.* 2.) Regardless of where tableware is removed from the trays, it is never more than 36 inches away from the conveyor of the dishwashing system.

This horizontal conveyor-type dishwashing system not only provides efficient handling, but lends itself also to unlimited flexibility for loading the soiled ware onto the conveyor. The horizontal dishwashing system consists of a stainless steel, ball-bearing mounted conveyor system which traverses through separate pre-wash, wash, power-rinse, and final sterilizing rinse compartments. The end results have been visually perfect tableware and bacteria counts of practically "zero." (*See Fig.* 3.)

The dishwashing system conveyor table is one-piece, heavy gauge stainless steel. There are no exposed chains nor sprockets to present a cleaning problem. A pneumatic hose is located around the perimeter of the conveyor and conveniently located air switches give the operators complete control over the equipment. These air switches replace conventional electrical switches in the working area and thereby eliminate possible hazards.

The clean dishes are loaded into modified self-leveling dish trucks. The distance from the top cabinet of the truck to the top of the guide rods (which hold the dishes in place) has been increased so that about eighteen dishes can be removed at one time for transfer at the serving line. Space at the serving line did not permit the use of self-leveling dispensing trucks.

Silverware

The silverware, when collected and separated into specially designed, four-compartment, plastisol-coated baskets, rides through the dishmachine for a preliminary wash. Since flatware (the spoons especially) tend to nest together further treat-

Fig. 4. *Three-compartment unit for final washing and sterilizing of silverware.*

ment, in addition to the conventional wash, was desirable to assure thorough cleanliness and completely sterile finished products. One positive way to assure this desired end result was to provide a means for agitating the silverware as it is washed. An especially designed three-compartment unit provided the answer. (*See Fig. 4.*)

As the silverware comes out of the dishwashing machine, it is placed in the first compartment of the three-compartment unit. This first compartment contains a special, silverware-washing detergent as well as an agitating device to give silverware a gentle but positive movement through the water. The plastisol baskets are equipped with aluminum rods to provide automatic de-tarnishing of the silverware as it is being washed. The second compartment is a primary rinse, and the third compartment is the final sterilizing rinse. The water in this third compartment contains a drying agent and the canted shelf over the unit holds the silverware in an upright position so that it can drain and dry quickly. This procedure has provided 100 percent perfect results. Although there are four stages of handling for silverware, the total effort required to use this system is not excessive. And the final perfect sterile results are a constant testimony to its merits.

Summary

Not every aspect of this dishwashing system incorporates a "new" idea. Further, the reader will agree that many features fall into the category of the "yet to be proven." But the experiment is paying off handsomely; the patrons are delighted with the service; the employees are pleased with the system; and, most important perhaps, operating costs have been reduced. The dishwashing process for nearly 1,400 people is now completed within two and one-half hours. The cost breakdown shows that the dishes of 65 patrons are washed per manhour employee.*

More significantly, this process is completed by people who are no longer classed as "dishwashers" but as "cafeteria employees" who find the system interesting, clean, and not the least bit offensive. It has resulted in the elimination of job classifications, thereby rendering complete flexibility in the use of employees and it folds in nicely with New England Life's program of upgrading employment conditions.

* This would include an average of about six pieces of china and glassware and four-five pieces of silverware. —*Editor*

Hilton on the Moon?

The cow poke who wanted to sleep with his horse has been replaced by the highway jockey who wants to sleep with his car. Accommodations are available for the globe trotter who wants to sleep next to his plane and no doubt plans are on the drawing board for the astronaut who wants to sleep with his rocket.

Method and Motion Studies

Dishwashing is only one phase of the food service operation that can be speeded up.

by Arthur W. Dana

In industry, a great deal is heard about time-and-motion studies and how they are used to develop greater worker efficiency. The food service manager, faced with rising labor costs, may well ponder whether such studies could save money in his own operation. And there are some areas, particularly in the dishwashing department, where applications might show good immediate results.

Factory Applications

At the outset, let us consider what type of industries benefit most from time-and-motion studies. These are mainly the industries that fabricate items of substantial value (automobiles, TV sets, refrigerators, and the like) and that have hundreds and even thousands of workers performing the same motions over and over again on the production line.

These patterns of recurring motions are performed for extended periods of the day. The workers use costly tools or put together a product of great value, and the time involved in fabrication can amount to several thousand dollars a day. For this reason, a few seconds clipped off here and a minute or two subtracted there for each worker can add up to significant savings for the entire operation.

Food Service Applications

Few, if any, of these elements exist in most restaurants to a degree that justifies the painstaking and expensive (but profitable) industrial time-and-motion studies. Nevertheless, within the restaurant there are a few of these types of recurring motions, usually sustained only for short periods of time. Take food preparation for an example.

Professional cooks and bakers, even long before the time of Taylor and the Gilbreths (pioneers in time-and-motion study), had worked out the most dexterous approach to performing their many duties and skills. They passed on their uncodified systems for efficiency to apprentices so that today's experienced cook or baker carries through his duties with an economy of time and motion that amazes industrial engineers.

Restaurant cooks perform many short-term recurring motions as they go about their work—chopping an onion, slicing stalks of celery, stirring sauces, keeping an eye on the boiling pots or kettles and on the roasts in the oven. While these varied, intermittent recurring motions do not justify extensive time studies, even an informal study of the motions involved in rapid chopping and slicing would have significant value. The cook's skill has been developed through working under master chefs and observing other workers, plus the pressure and demands of juggling many duties at once when he is on his own.

The Dishwashing Application

Within the restaurant, the dishwashing department comes closest to resembling factory operation in the opportunity to apply time-and-motion study principles. Here workers perform recurring motions, day in and day out—scraping soiled plates, loading them into the dish machine, unloading the racks of washed ware and sorting and putting it away. But how efficient are these processes? Rarely as high as 50 percent and probably as low as 40 percent.

The dishwasher's pay has traditionally been low. Yet today, as Mr. Schneider has pointed out*,

* See page 61.

the dishwasher works with a relatively expensive machine.

If the work place and the methods are geared to keep pace reasonably well with the speed of the machine's conveyor—or, in other words, if loading and/or unloading the machine can approach anywhere near the 70 percent efficiency (hopefully suggested by manufacturers)—substantial savings can result. Larger than necessary machines and excessive labor costs, even at low rates, seem now to be the rule.

Training Dish Department Helpers

Let us see how, in the dishwashing department, workers can be trained to utilize time and motion principles to obtain worthwhile savings.

Principles of Motion Economy

Consider these three principles of motion economy as they relate to use of the human body:

1. Use of one hand, while the other is idle, is more tiring than if two hands are used at the same time.
2. Motions of the arms should be made in *opposite* and *symmetrical* directions and should be made simultaneously. (*Consider a baker "rounding" rolls at a work table.*)
3. Motions should be rhythmical as much as possible and performed without undue haste.

(Figure 1 diagrams the horizontal hand motions and reach distances of the average worker. The vertical motions and reach distances are almost identical.)

People tend to hold an object in one hand and to work on it with the other. This is usually undesirable, because it is fatiguing and far less productive than using both hands.

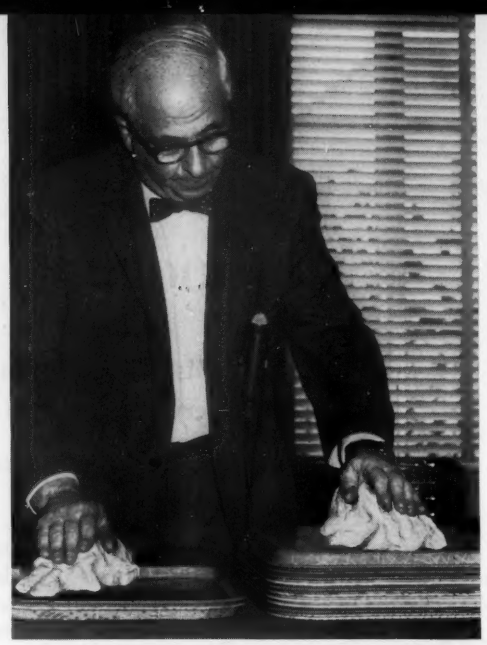


Fig. 2. Mr. Dana demonstrates tray wiping before a recent workshop sponsored by the National Restaurant Association and Cornell's School of Hotel Administration.

Tray Wiping

Now let us apply the three principles set forth above to the wiping of trays—one of the simplest jobs in the operation but one growing outmoded as mechanical air driers are introduced.

The typical untrained worker (and I have found uneducated persons the most receptive to new ideas) tends to pick up and hold the tray with one hand, wipe it with a towel in the other hand, then turn the tray over and wipe the tray back before laying it face up on the tray rack. The time required for wiping the tray, front and

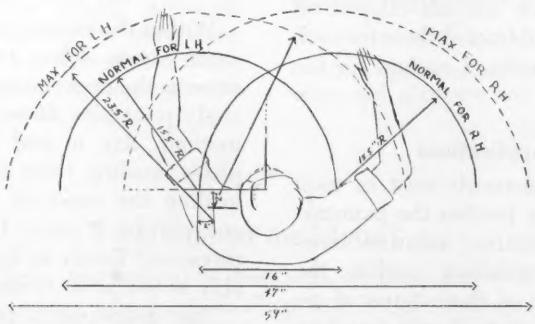
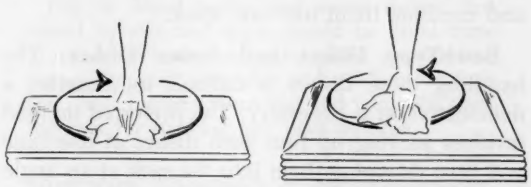


Fig. 1. Diagram showing work space, horizontal working motions, and hand reach of typical worker. Vertical arcs circumscribed by the hands are about the same as the horizontal arcs.

back, with such motions may be as much as 15 to 20 seconds. Most of the time only one hand is used, the other remaining idle or holding the tray.

Contrast the approach set forth above with the procedures outlined below:

- Trays are stacked face down with the narrow edge of the tray next to the worker's left hand. Trays, when wiped on the back, are to be stacked face up and in a parallel position so that the inside can be wiped with a towel held in the right hand. (*See Figure 2.*) The position of the two tray stacks re left and right hands may be reversed.
- After the first tray on the stack has been wiped on the back and turned over, the worker, holding pieces of turkish towels in both hands, uses circular, *opposite* movements to wipe the back of the second tray with one hand while he wipes the inside of the first tray with the other hand. (*See Figure 3.*)



- When the back of the second tray has been wiped, he uses both hands (towel still in hands) to flip it over on top of the first tray, repeating this same procedure until he gets to the bottom of the stack. (*See Figure 4.*)

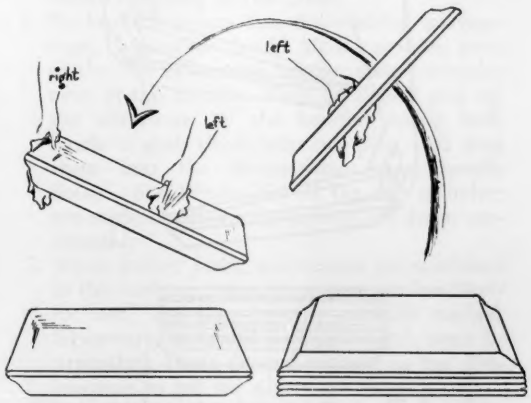


Fig. 4. The worker, using both hands, flips a tray dried on the back face over to the next stack so that he can wipe its inside at the same time he dries the back of the next tray.

The time required to wipe a tray, front and back, is about 5 seconds. Both hands are used. Further, by using both hands, the worker puts forth less energy.

Dish Scraping and Loading

Many rack-type dish machines can wash one rack after another every 12 to 20 seconds. Yet, the average worker requires 35 to 40 seconds to scrape and load (simultaneously) a rack of soiled dishes. When he must do both the scraping and the loading, the dish machine is being used at only 30 to 50 percent of its capacity.

In scraping, some workers use steel wool, which scars chinaware, and then rinse the dishes with an overhead spray as a means of presoaking them, adding another 7 to 8 seconds' delay. While this scraping is going on, the empty dish machine is usually churning away.

Why not combine and coordinate certain factors? Scraping could be done by a gushing device that focuses a jet of lukewarm water in a trajectory. Passing plates through this water plume, when they are picked off the tray, not only washes debris off the china but also can serve as a presoak medium because of the water left on plates.

Plates. Instead of loading dishes miscellaneously into the rack for the next worker to sort out after washing, why not accumulate uniform stacks of each size of plate, so that one type can be loaded consecutively into a rack or belt conveyor?

The loader can then use two hands and by holding *two plates in each hand* he can put four plates into the rack at once in this manner:

1. Pick up two plates in each hand from two plate stacks. (*See Figure 5.*)

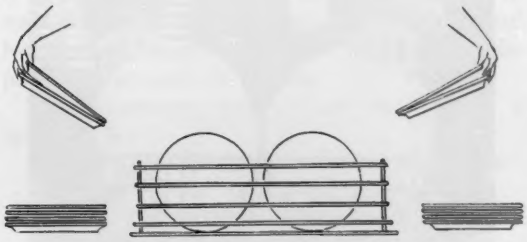


Fig. 5. Plates, previously sorted and arranged in piles on either side of the loading tray, are grasped, two in each hand, for loading.

Illustrations by Mrs. Marcia Case Field

Fig. 6. Mr. Dana shows how the plates, held two in each hand, should be pinched apart by grasping them tightly at the top before dropping them into position in the rack.

Fig. 7. Before unloading the washed plates, Mr. Dana shows how the sorter should spread the plates apart to examine them for cleanliness before picking them up.

2. Pinch the plates apart with the fingers. (*See Figure 6.*)
3. Drop them lightly into position in the rack holder.
4. In unloading the washed rack, the worker should inspect the plates for cleanliness (*spread plates apart with his index finger in between as shown in Figure 7*).
5. Lift out two plates in each hand and combine them into one stack. (*See Figure 8.*)

Using this double-time procedure need not involve more wear and tear on the plates; it is quieter than the usual method and a great deal speedier.

Small Plates. These small dishes should first be sorted by size. Then the worker may pick up three at one time from the soiled dish pile, *fan them out in both hands* and drop them into a row in the tray rack. (*See Figure 9.*) To remove dishes from the rack after washing, the worker should "roll" the three together, using both hands, and combine them into one stack.

Bowl-Type Dishes and Sauce Dishes. The handling these dishes is difficult to describe; a demonstration is necessary. The preferred method involves picking up four such dishes at one time and then dropping them into the rack at an angle that insures thorough washing in the machine. The worker needs to learn the proper angle for placing bowl-type dishes in the rack.

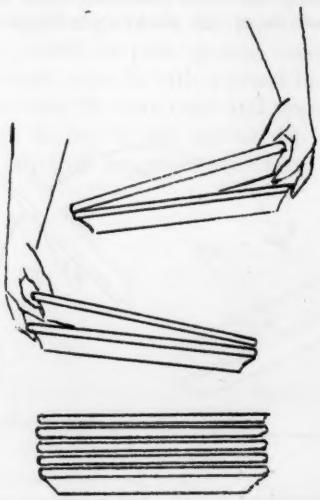


Fig. 8. The sorter, grasping two plates in each hand with an index finger between each two plates, combines all four plates into one stack, dropping the plates lightly into position. This cuts down kitchen noise.

Fig. 9. Small plates and sauce dishes, first sorted by size and type, should be lifted three at a time in both hands and rolled apart before being dropped into the rack. When washed, the sorter inspects them first and then rolls them together for stacking into piles by type.

Fig. 10. Mr. Dana demonstrates how silverware, put into the narrow soaking pans in parallel positions, should be grasped by the handles for loading the washing cups. Combining knives, forks, and spoons in the same washing cup prevents nesting.

Silverware. Silverware in many operations, is thrown into the soaking pans in helter-skelter order.

1. Keeping knives, forks, and spoons parallel when putting them into the narrow soaking pans makes it possible to put more into the pans, avoids cuts and broken finger nails, and makes for greater efficiency in washing. Noise is cut down by filling the pans first with water before dropping in the silver.
2. To load silverware into the washing machine cups, the worker should tilt the soaking pans so that the silverware handles slide forward—even at the handles. Then he should pick up the silverware by the handles, using both hands to grab silver from two pans, and drop them into the dishmachine cups, handle down. (*See Figure 10.*) If the cup cylinders are made of plastic, the noise is cut down considerably.
3. When knives, forks, and spoons are combined in the washing cylinders, spoons are less likely to "nest" and thus be only partially washed. Silverware, it should be emphasized, must be presoaked. Don't depend entirely on the dishmachine to get the silverware clean.
4. To remove the washed silverware from the cylinders, the worker should empty two cylinders (one in each hand) into two narrow bins set at a tilt. Tilting the bins makes sorting easy—the knife handles are the longest, the forks next, and the spoons the shortest. To avoid scrambling the silverware, the bins should be narrow and deep.

Some thought has been given to using a magnet for sorting silverware. A magnetic device might work very well with knives, especially the blades, but spoons would be a problem.

To sum up . . .

many areas in restaurant operation could benefit from careful methods or motion studies. Experienced cooks have developed their own system for efficiency. Many other kitchen workers are eager to learn new, less-tiring methods, if properly presented. Management, in seeking a place to start the achievement of greater dexterity and less motion, might choose the dishwashing department for quick dividends.

The investment may or may not require a specialist for

- **Analyses of work place in relation to possible improved methods.**
- **Developing and *coordinating* improved methods with requirements of objectives.**
- **Training "foremen," "group leaders," "head dish machine operators" in how to put new methods into effect.**
- **Follow through to see that instructions are being carried out.**

The Architect Views the Food Service Consultant

By George Kassabaum, A.I.A. *
Helmuth, Obata, & Kassabaum, St. Louis, Missouri

Seldom do we take time to justify our professions by asking what each of them contributes to our way of life. The danger in becoming a specialist or an expert is that we may become so absorbed with the refinement of details that we lose sight of other equally significant parts of the problem.

Thus, in discussing the relationship between the architect and the food service consultant, we are really talking about three things: the architect; the consultant; and the *relationship* between them. As in most cases, the relationship is probably the most important because it is the most difficult to define. But it is also quite important that we understand what exactly is being related. So let's consider the architect and the consultant first.

The Architect

What is an architect? What contribution to a building should he be expected to make?

Some would concentrate on the architect's aesthetic contributions—but this is only the part of him that is an artist. Some would stress his ability to insure that the building is safe—but an engineer could do as well. Some would stress his contribution as a functional planner—yet a statistician could quickly learn as much about circulation and the flow of materials. There are many more definitions and each would be right to some degree, but they fall short in that they would be only *partly* right. An architect must be all of these things and also something more.

I feel that an architect's basic responsibility is "to analyze the significance of the building he has been asked to design and to provide the proper environment for this meaning." The building may be to work in, or play in, or learn in, or get well in—each purpose makes its own significant demand. And a building that could be any of these equally well fails as the best solution for the intended purpose. It is like trying to design a tool that could be a hammer, a screwdriver, and a wrench. Even if you could do it, it wouldn't be a very good hammer, screwdriver, or wrench. To design the very best hammer, you must sacrifice the other two.

Most decisions involve sacrificing something that is considered less important in favor of something more important. The most successful architect, by my definition, is the one who most often makes the right sacrifices. The "good" know when to sacrifice sheer function, maximum economy, or any of the many other things that a building might be expected to offer. The "weak" are afraid to make such sacrifices and so they provide a little bit of each and usually end up with hash.

But of all the sacrifices that could be made, an architect should understand that he cannot sacrifice the proper environment and still claim to have solved the problem. More is required than merely keeping the rain out and the heat in. It is his challenge to provide an environment that is intellectually stimulating, emotionally exciting, and maybe even spiritually satisfying. For mankind, it is the awareness of one's environment that is actually more important than the environment itself.

Yet an architect cannot undertake the task of educating everyone to this awareness—all he can do is provide the environment to be appreciated if anyone will take the time and make the effort to do so. As I lie under the shade of a tree on a pleasant summer afternoon, a caterpillar on the limb above me has the same environment that I do; yet he is sensitive to his surroundings in an entirely different way. Don't you be a caterpillar. Ask more of your environment than being only a source of food and shelter.

* Adapted from an address given before the spring seminar of the International Society of Food Service Consultants, May 6–8, 1960, in Chicago.

Look at your home, your office, your way to work—look at them as though you were seeing them for the very first time. If everyone did so, our homes would offer more satisfaction, our cities would contribute to our way of life rather than challenging it—even our lives would be different and the difference would be for the good.

This problem of environment should always be the architect's first concern. That is why he is not going to give you an area for the preparation and consumption of food and never bother you again, even if you do happen to think that the world would be a better place if he would just keep his nose out of your business.

To best achieve his goal of proper environment, the architect must take bits and pieces other than yours—details that have usually been *calculated* rather than *created* (and there is a difference) and modify them until they contribute to, or at least don't interfere with, the environmental needs of the people who will use the space. Each consultant often thinks in terms of his own specialty —so that the building may be, perhaps, super safe for example. But if the beams give the feeling of crushing down on the people below, the building is a failure. And the heat ducts may be most economical if they are straight and go in easily. Yet, if the room seems to be made for housing diffusers, controls, and ductwork, the room is a failure.

As food service consultants you will agree that a kitchen could be efficient, easily maintained, economical, safe, warm, properly illuminated, with all the equipment and services just where they should be, and yet have an environment that discourages interest and creativity in food preparation. The architect, seeking to fulfill his goal for environment, and not sure what to sacrifice in this area, turns to you as the food service consultant for help.

The Food Service Consultant

The food service consultant has more to offer than a knowledge of equipment—the latest models, what they will do, what they won't do, how much they cost. This knowledge is so basic to the profession that if he were satisfied to stop there it would be similar to an architect's being content to stop with his ability to draw.

Food service consultants offer a knowledge of procedures, processes, and efficiency. And yet this is still not enough. More ugliness and evil have been forced on this world in the name of usefulness, convenience, and efficiency than for any other single factor. Huge swaths are cut through our cities to make them convenient and efficient for traffic—and in the process we destroy cities as pleasant places to live. We split the atom to make it useful, convenient and efficient—but primarily perhaps to destroy half the human race. We should not be too impressed with usefulness, convenience, and efficiency as the most desirable ends in themselves.

What more? As an expert, a specialist, a consultant, whatever the name, the food service consultant shares the responsibility and obligations of all experts—not only to know what has been done and is being done, but also to use his background and knowledge as the basis to develop vision—vision enabling him to take the lead in showing others what might be done.

The food service consultant has chosen to be a specialist. He is in step with our time, for we live in an age of specialization. While many blame specialization as the trend that ruins our lives and destroys our world, even they must reluctantly admit that this is a wonderful time to be alive. Thus, even though there be dangers and disadvantages, something in this system of specialization must be so good that no one could seriously suggest that we turn our backs on all that it has contributed to our way of life.

The only danger in being a specialist is that you may develop such a narrow viewpoint that you become oblivious to the views of others. There is nothing wrong with being an expert so long as you realize that the thing you are so good at is only a part of a much larger, and therefore more important, thing.

There is nothing wrong with being a carburetor expert so long as you can avoid feeling that the primary purpose of an automobile is to give the carburetor the chance to work. Today's carburetor, like most things in our world, is a complex thing. More is demanded of it today than was required of carburetors five years ago. And the more that is demanded, the more complex things become; and the more complex things become, the more we need specialists, for only an expert can design the best—the best carburetor, the best kitchen, and, for that matter, the best world.

The food service consultant has chosen as his special contribution that area of the building concerned with food. Yet, that is no reason for his setting a limit on his thinking. The same aesthetic and environmental considerations apply—the only difference is perhaps one of degree.

If the sense of efficiency that the food service consultant can bring to the food area of a building results in a serene feeling of order, then he has done a great deal. But this contribution will more likely result if his aim has been more than just "efficiency for efficiency's sake." Rather, it should be efficiency as a means of creating an orderly environment, for there can be no grasp of environment amid chaos. And by this example, perhaps, the food service consultant can help make the architect aware of how his building could be improved if the same principle could be applied throughout.

If the food service consultant can express his feeling that the atmosphere of the dining room is important to its function, maybe the architect will ask himself if it isn't equally important in the classroom. If you can approach your problem in an enthusiastic, original, and stimulating way, it is bound to be contagious to some degree.

The Architect and the Consultant

In any relationship between men, whether a baseball team or a design team, the strongest team is that composed of members who supplement the others, who compensate for the weakness of the others, and who, by personal example, inspire the others to try things they might otherwise fear to try. The food service consultant should concentrate on making himself an important member of the design team.

This concept of doing things by teamwork is almost unique to our generation. The architects, perhaps, are more guilty in failing to recognize this concept than other professions. Some architects still sentimentalize about the good old days of the dominant personality—the master. They refer back to the time of daVinci and Michaelangelo as examples when they say that design cannot coalesce from committees. This traditional concept of master is subscribed to by some who scorn tradition when it comes to matters of design.

Even more serious, this traditional concept cannot be counted upon to solve today's non-traditional problems. These old masters worked in a time when wisdom was all that was needed because not so many facts were known and not so many decisions had to be made. If only two things must be decided between, not much technical knowledge is required to be right even half of the time. But when you are faced with a hundred choices, you cannot trust to chance.

It is because there are so many choices today that we cannot count on any one man—no matter how brilliant—to make all of the choices. Having so many things to choose from permits too wide a variation in the degree of correctness in our choice. As an architect, I could design a kitchen that would somehow and in some way permit the preparation of food. As a food service consultant, you could design a building that would keep the rain out and the heat in. My kitchen would fall far short of what it might be. Your building would fall far short of being architecture. By working together, we have a chance in succeeding in both. By working as a team, we can do together what we could not do separately.

Why? The first, and most obvious, advantage of a team is that it provides a series of checks and balances that discourages, even if it does not prevent, our making serious mistakes. There are just too many things to know today for any one man to know all of the best answers.

The team has one more very important advantage: the chance to be stimulated from an intimate but outside source—the chance that each of us working closely together can trigger the creative process in the other. This can't happen if we are content to live in our own little shell—content with our own accomplishments and abilities, ignoring the viewpoint of others. And creativeness is one thing that the whole world—not just the architectural world—needs.

Now if our team doesn't result in a creative approach, then we may be better off by going back to the traditional concept of the "master builder"—at least it would be more efficient. This ability, then, to stimulate is one quality that the food service consultant must strive to bring to the team. Accomplish this as you may, all of us need to be forced to look at a problem as though we were seeing it for the first time. And this can't be done by falling back on yesterday's solution or last year's formula.

The formula is useful and it is usually born in a burst of creativity, but once having been conceived, it seems to stifle the creativity of lesser men who are content to apply it again and again and even try to force every problem into a mold that this formula will fit. The basic advantage of the team is that it can force us to re-examine our old formulas. It provides the opportunity for the exchange of concepts, ideas, and solutions in a way that all members of the team can be inspired to greater creativity.

If all the food service consultant can bring to

the team is his ability to make things more convenient, a little more efficient, a little more useful, he is not going to be much help to the team. These qualities, though essential, are not the qualities that inspire, excite, or move men's souls. The pyramids had a function, but it is not their function that excites everyone who sees them centuries later. The Gothic cathedrals are a little less functional, a little less comfortable, a little less efficient in contrast to today's churches, but they have inspired men in a manner that more functional, comfortable churches have not.

We place great stress on practicality, utility, efficiency, usefulness. This stress all too often produces only uniformity, standardization, and monotony. Theoretically, we could all eat the same food, wear the same clothes, drive the same cars, and live in the same type of house. This would be the most economical, efficient world, but it would only further continue the process of destroying individuality—the unique quality that makes men stimulating and interesting—the quality that makes you creative and a stimulating member of the design team.

The food service consultant's chosen field for creativity is one of man's most basic necessities, food. The architect has chosen to specialize in another, shelter. We do not need to spend time in creating a demand. We can spend time creating solutions for these necessities. But food and shelter should be among man's greatest pleasures. This is our challenge.

The fact that many people eat food only as a necessity should be the food service consultant's concern. The tendency to grab a breakfast and a lunch cannot be blamed on him, as it is more a product of our time than a quality of the food. But who else will take this problem as their concern unless it is the food service consultant?

The automobile is not the province of the architect, but a few have decided that someone must put it in its proper perspective. And since the automobile threatens to ruin our cities as places for people to enjoy living, it seems reasonably logical that the architect should be the one to try.

Just as architects have come to realize that it is rare to have the chance to solve a city planning problem other than by one building at a time, the food consultants must also realize that their big challenge can be met only one step at a time. Each project offers a new opportunity in this direction. You must ask yourselves questions. In a specialty, only a specialist is qualified to ask the real questions.

A searching question might be: why are cheap drive-ins such glass boxes and why are expensive restaurants such dark caves? Undoubtedly colors affect food as an emotional experience, but what about materials? Are the great dishes prepared in kitchens that are all stainless steel, glazed tile, and with perfect ventilation? Or does the antiseptic environment of sterility make it such an uninspiring place to work that the product suffers? Is a certificate from the health department on the walls of one of your kitchens the highest award you can hope to win?

The right answers to these questions, and the answers to better questions that you can ask yourself, can to some degree make the hurried lunch of the shoe clerk more pleasant in the same way it can make the leisurely dinner of the gourmet a delightful experience.

One final word of caution. You will not stimulate creation on the part of the team, you will not enrich the life of the shoe clerk, you will not realize the full potential of your chosen field, if all you bring to the team is usefulness. Language is useful, but it cannot begin to explain the feeling of poetry. Paints are useful as means of protection, but this cannot explain the effect on men of the Mona Lisa. Eating is useful too, but why stop there?

The National Industrial Conference Board, in surveying 375 companies recently, learned that most companies are generous with executive expense accounts. For example, over half of the companies sometimes pay wives' expenses when they accompany their husbands to a distant or lengthy convention or one that involves social situations where a wife can be helpful. Most companies also pay executives' dues in business or professional organizations that are directly connected with the job. About 44 percent pick up the tab for luncheon clubs and almost the same number also take care of athletic and country club charges.

The Food Facilities Engineer

as viewed by a Food and Beverage Manager

What are the respective roles of the two, and how can they work together to produce a more workable, more profitable operation?

by Allen Hubsch

One outcome of the public's desire for new "adventures in eating" and the hotel and restaurant industry's development of the so-called "specialty" type of restaurant has been greater emphasis upon obtaining the services of a qualified food facility engineer—a consultant who develops and designs food service areas.

The Food Facilities Engineer

The food facilities engineer is typically a private consultant who has considerable background knowledge of the technical aspects of food service planning. He may, though, have only a sketchy knowledge of the operational objectives of the new project. This shortcoming may be due to lack of time to research the project; to incomplete information supplied by those who have conceived and will operate the new facility; or, perhaps, from lack of experience.

To analyze the role of the food facilities engineer realistically, we should first consider the essentials of planning a new operation or, as is often the case, rehabilitating an existing one.

Three Essentials of Planning

There are three essential areas in the development of an excellent new dining facility.

1. Concept—a plan designed for a market which actually exists.
2. Layout—a plan for efficiency and simplified operation.
3. Management and Administration—a plan for profits.

The proper coordination of these three areas from the outset can spell the difference between profitable operation versus a financial failure. Let us examine these three essentials.

Concept

This area of thought is generally detached and is the inspiration for the creation of a new facility. The concept is a response to a market analysis which states that there is a great demand and a great potential for a certain type of facility.

The development of public demand aspects begins at this point and includes exterior and interior design, menu selection, beverages and bar treatment, and all of the range of "specialty" ideas—rotisseries, flaming desserts, native costumes and the like.

Layout

The broad area of layout and space orientation is generally the one in which we think of the food facilities engineer as being an expert. His experience in planning and knowledge of the latest equipment place him in the best position to select equipment, determine traffic flows, orient space, select utilities, introduce automation, develop sanitation and maintenance standards, and program the construction and installation of the new facilities.

Management and Administration

The third essential is management and administration. This area of thought involves a back-

ALLEN HUBSCH is Food and Beverage Director for the Hotel Corporation of America. Upon graduation from Cornell in 1951, he joined the Hilton Hotels Corporation in New York remaining with the company until 1956, when he became Assistant General Manager of the Hotel New Yorker. He was Food and Beverage Director for Realty Hotels and also General Manager of the Longchamps Restaurants in New York City.

ground of specialized on-job experience. Its general aspects include:

- Responsibility for day-to-day operation.
- Actual menu writing.
- Sales promotion, publicity and advertising.
- Development of cashiering, checking and control systems.
- Development of a personnel program.
- Purchasing standards and policies.
- Dining room service techniques.

The Roles in Planning

The areas of layout and of management and administration obviously require close coordination for optimum results.

As previously stated, there has been a great development in food facilities engineering. Yet, while this development is quite advanced from the standpoint of equipment, it is still in its early stages from the operational point of view. The food and beverage manager should qualify as an authority in the management and administration area.

The food facilities engineer should not develop any layout without first assuring himself that he has complete information on menu and method of operation. He should also know that the sources of his information are authoritative and that they present an accurate picture of the facility being planned.

The food and beverage manager also has a responsibility to provide information to the food facilities engineer, who, in turn, has a responsibility to wait for this information. Listed below are some of the basic matters which should be understood by all parties.

- Menu selection and preparation methods.
- Purchasing policies with regard to frozen foods, prepared foods, packaging, etc.
- The cashiering, checking and internal control system which will be used.
- Personnel policies—employee feeding, caliber of employees needed to operate a given facility, job description and number of employees.
- Dining room service methods—self-service features, bussing methods, warehandling procedures and general table service.
- The basic merchandising approach—display production, menu emphasis, etc.

Food Facilities Engineering Today

The layout planners of today have made great strides forward, particularly in providing manufacturers with new approaches in the development of equipment. Great advances in work simplification and kitchen sanitation have also been made.

On the other side of the record, the food facilities engineer is sometimes prone to experiment with new equipment for his accounts, to fail to get answers where he is in doubt, and to ignore the operators on questions where the architect or decorator may be more sympathetic to them personally but actually not more practical.

In brief, food facilities engineers have demonstrated that they can save money on equipment and layout. But in several instances they have not offered the operator his maximum operational profit possibilities. It can also be said that most food and beverage managers would like more influence in the planning of a new facility—a facility they are going to manage.

A Symposium

No More Kitchens?

Will the quantity kitchen, as we know it, soon disappear from most food service outlets? Will it be replaced by the central commissary—a vast "laboratory production kitchen"—with the multiple food outlets having their own commissary and the independent operators purchasing precooked foods in much the same fashion as they now purchase raw food products?

Articles printed in the trade press and opinions delivered before industry get-togethers would lead us to believe that the days of the quantity food kitchen are definitely numbered. There has been a movement in this direction for two decades or more which seems, judging from the reports, to be gathering momentum.

But how swiftly is this transformation taking place? What developments are speeding the change? In what type of food operations is it most acceptable? Even more important, what is the viewpoint of industry leaders who operate large food service establishments and of those who plan the facilities for hundreds of food service operations of every type, size, and description?

To ascertain the present status and future possibility of the restaurant-type kitchen becoming passé, *The Quarterly* addressed a series of questions to industry leaders on the firing line. Three executives of large food service operations and five food service consultants set forth their opinions in some detail.

The questions asked and the replies given are set forth here.

Questions Regarding "No More Kitchens in Future"

1. Is this development largely visionary—like space travel—or a matter that may come to pass within say,
   the next 3 years?
   the next 10 years?
   the next 20 years?
2. What type of restaurant do you think may adopt this procedure?
3. Related to the question above, what type of customer would be most likely to accept the presently available foods coming from a "central laboratory"?
   a. industrial feeders?
   b. schools and colleges?
   c. church, community functions and other catered groups?
   d. hospitals?
   e. transportation services?
   f. multiple-unit food outlets, popular-priced menus?
   g. banquet groups?
   h. vending machine operators?
4. What conditions do you think would promote this type of operation?
   a. The greater utilization of pre-cooked, frozen menu items, such as meat pies, lobster newburg, roast turkey, pot roasts, etc.?
   b. The utilization of completely frozen meals along the line of the present TV dinner?
   c. Food products pasteurized and preserved by the use of radiation?
5. In further evaluating the possibilities of this much publicized theory, what direct criticisms or objections do you find in the general application?

Mr. Earl D. Triplett
Manager, Food Services Department
Ford Motor Company

While I do not agree implicitly with the theory of "No More Kitchens," I am convinced that within the next ten years the restaurant industry will witness the most radical change in operational methods it has ever seen. Just as surely as the salvation of any industry is cost reduction through labor-saving methods and devices or some form of automation, restaurants of the future must find ways of reducing preparation, cooking and serving costs.

When the wage-cost spiral overtakes it, and the restaurant industry is encompassed by the minimum wage law, as it inevitably must be, only those restaurants will survive which are able to offset higher costs by changes in operational procedures that will produce greater output or increased revenue of labor per man hour.

For many years, I have been a strong advocate of the theory that the salvation of industrial or inplant feeding depends on the satisfactory development of the principle of reconstituting frozen cooked foods. Although perfection of such a process would not be a panacea or sinecure for the industry, sufficient advantages are evident to warrant exhaustive research and experimentation in this direction.

It does not tax one's imagination severely to comprehend the tremendous possibilities in having on hand a stock of prepared frozen entrees or meals which require a very short time to prepare for serving. Without attempting to elaborate on each point, some of the major advantages are:

1. Almost unlimited variety in entrée selection.
2. Production not limited by capacity of cooking and serving equipment.
3. Practically eliminating left overs and costly reworking of same.
4. Minimizing guesswork of amount of each item to prepare for service.
5. Safeguard against running out of any item.
6. Guarantee late diners the same menu and same selection as the early arrivals.
7. Minimize the effect of daily fluctuations in volume.
8. Reduction of high priced skilled labor in kitchen.
9. Lower food costs through volume purchasing when supplies are greatest and raw material costs are lowest.
10. Reduction in investment through greater utilization of preparation and cooking equipment.

In my opinion, initial success will be realized by multiple-unit food outlets, either commercial or industrial feeding systems that can establish central commissary kitchens to produce the frozen cooked foods. Ten years is not too soon to expect significant development in these areas. From this point it will be a simple problem to develop adaptation of the principle to almost any type of feeding establishment.

By no stretch of my imagination can I visualize all restaurants purchasing prepared entrées or meals from an independent "central laboratory." It would be a sad situation for the industry if all restaurants gave up their individuality in foods that has served to create their present reputations, popularity and financial status. Certainly, the presently available foods in frozen cooked form are not adequate to create any great degree of success in eliminating restaurant kitchens.

Perhaps the future of pre-cooked frozen foods in the commercial field lies with large chain organizations who can maintain central kitchens of their own to prepare food according to their own recipes suited to their type of operation.

If this is true, would not the next logical step be the formation of new chains, either through merger or outright purchase of other restaurants, capable of supporting a central commissary kitchen supplying a number of outlets within a limited radius? Perhaps the time is limited when the restaurant industry will be composed of hundreds and thousands of small individual businesses. In order to survive, the restaurant industry may have to travel the same route, of forming into large firms, that other industries have taken.

Our nation was founded and progressed for many years on individualism and small businesses and there will be a place for these always. But sooner or later economic facts force a reduction of overhead and direct costs. When that moment arrives in the Restaurant Industry it appears to me, the continuity of small individual restaurants is doomed and establishments of large concerns is inevitable.

In approaching the theory of frozen cooked foods there are presently two concepts. One deals with freezing individual items and the other with freezing complete meals. At the present time no one has sufficient knowledge or foresight to predict whether one concept has any greater chance of success than the other. Probably there is need for both, depending on the type of restaurant and method of operation to be used.

Now is not the time for our Industry to robe itself in a mantle of complacency. Progress will not be denied.

Research and experimentation in this new field is the responsibility of all segments of the industry; individual efforts, association projects, equipment designing, concept development in the consulting field and educational courses in hotel and restaurant schools all will contribute to the fullest development of the embryonic idea.

Mr. Harry H. Pope
President, Pope's Cafeterias, Inc.
St. Louis, Missouri

I doubt that such a revolution as "No More Kitchens" in food service will take place within the next generation. If we look back, we see that installations which were modern a generation ago are not yet obsolete. Assuming that our industry will proceed with the same rate of progress during the next generation, we would hardly reach the point where radically different food services would have developed.

The problems of the steadily increasing labor cost and the decreasing supply of skilled craftsmen in our industry can be met with available management techniques such as: the use of standardized recipes, improved layout, modern equipment, simplified menus, and better utilization of labor and material.

Some increase in the commissary production of food can be expected, not so much to replace existing food services, as to supply the outlets which could not be handled by our traditional methods.

For example, it is conceivable that vending machines, supplied by commissaries, will be more widely used in bus stations and in the smaller plants, offices, and schools. However, the large investment necessary to set up hot and cold vending machines, the high cost of the specialized labor to service vending operations, and the necessary limitations of vending menus are among the factors which make it doubtful that vending machines will replace traditional service methods in locations with substantial volume.

While many restaurant operators look hopefully to the food manufacturers to solve the problems of increasing cost and decreasing skills of the available labor market, the institutional food manufacturers have not given us any indication that they can stop the inflationary trend.

In a great many of the prepared or semiprepared products being offered to the food service industry today, the cost of "built in labor" is far more than the actual labor saving offered. This is not surprising when we consider that the manufacturer usually operates with high priced union labor and must absorb such costs as advertising and promotion, research, capital investment, selling, and distribution. In this connection, it would seem logical to assume that most off-premises production of food for restaurants will take place in the commissaries of chain operations, whose production cost is not increased by promotion and sales expense.

For this reason, we may expect to see more development of large chains with commissaries. This trend is already evident overseas with such firms as Lyons of London, Smorrebrod of Denmark, I. C. A. of Sweden, and Au'berge Express of Paris.

In general, it is my opinion that the restaurants of the foreseeable future will be largely in the following categories:

- Self-service hamburger and refreshment operations.
- Simplified operations such as pancake, fried chicken, or steak houses.
- Gourmet operations catering to a small minority who want fine cuisine and lavish services regardless of cost.
- Cafeterias with sufficient volume to divide production and service into specialized departments which can utilize and train unskilled people.

In each of these types of restaurants, the need for factory production is minimized. Therefore, on-premises cooking would be continued, and the predictions of "No More Kitchens" would not materialize.

Mr. Henry A. Montague
President, The Prophet Co.
Detroit, Michigan

We have reviewed the questions you raised concerning the likelihood of "No More Kitchens" and our views in this matter are reflected in the following comments:

The restaurant kitchen we know today, and have known in the past, is in the midst of a tremendous upheaval. A very few short years ago, our industry was known for its inept approach to modern methods of automation. Today, with the cost of labor in some cases equaling the cost of food, it has forced drastic changes in concept. Industry is now alert to methods by which this cost can be reduced.

We have seen the virtual passing of the butcher from the restaurant scene by the introduction of prefabricated and preportioned meats with closer tolerances and stricter adherence to specifications than could be obtained from the butcher on the local payroll.

We have seen the introduction of cake and bread mixes. The acceptance of these products is increasing constantly for the quality is uniform and very high. Competition by the suppliers is very keen, which keeps the quality high. We will, no doubt, see elimination of the baker from the restaurant.

We are now witnessing the introduction of prepared hot foods, which have been packaged and frozen. These are largely experimental products which would be readily acceptable to the industry if present testing proves successful. But, nevertheless, there is a relentless drive and determination augmented by the restaurant operators for new products which could be used to help reduce the growing cost of manual labor.

To assume however, this trend will proceed, promptly or even ultimately, to the elimination of kitchens is without foundation because:

> *The bulk of prepared foods available to us today is actually only in some 'intermediate' stage of preparation. It will require final processing at or near the point of consumption by some technician—but, where two were previously needed one may be able to handle the job completely.*

For this reason we cannot say the restaurant kitchen will become obsolete. The dollar revenue earned per employee will increase because of the use and acceptance of processed foods. This condition is with us now and will accelerate in all phases of the restaurant industry. There is not a restaurant operator today who would hesitate to make a change or introduce a product if he felt the quality, the product and money saved would warrant this change.

The determination of what type of customer would more likely use the presently available foods coming from a central laboratory is based upon several tests. Inasmuch as product selection is a continuing process, the operator, whether he be in charge of a hospital kitchen or manage a complex of kitchens in industrial plants coast to coast, will first want to know if the quality of the product is equivalent or superior to that which is now being produced. Second, he will want to know if the product is more economical to use if all costs involved are included.

If the available laboratory foods meet the qualifications satisfactory for the operator, then each of the categories as listed in question #3, will in some manner or form use the product.

The conditions which are likely to promote the use of these pre-cooked foods in addition to the test of quality and economy, will be the variety offered for sale. If a menu can be completely written, the monotony of products eliminated and the manpower available utilized effectively, there is no question that these products will increase in use.

Arthur William Dana
Food Operations Consultant
New York City

As a broad-scale development, there will always be kitchens for broiling, deep-fat frying and sautéing, as well as for roasting medium or medium-rare meats. There is no talk of doing away with household kitchens, for example. For years commissaries have been providing to chain outlets mass-prepared foods; these outlets have, for good reasons, had short order kitchens.

Low-priced restaurants with relatively small seating capacities and limited specialty menus are most likely to have or buy from central commissaries.

The type of customer to whom such food may be acceptable would probably be as follows:

- Industrial feeders-possibly up to 200 hot food sales.
- Schools and colleges are less likely: they have a "captive audience" but the quality standards must be higher than they are at present.
- Church, community groups and the like are a good possibility.
- Hospitals are not especially good prospects.
- Transportation services, but again quality standards are not yet high enough.
- Multiple-unit food outlets, especially the very low priced.
- Banquet groups, only if the quality of the food is high.
- Vending machine operators, definitely.

The conditions that would promote the commissary-type of operation would be the utilization and availability of more pre-cooked, frozen menu items. Completely frozen meals similar to the TV dinner would not solve the problem because there should be variations of vegetables and potatoes. As for foods preserved by radiation, this process is still in the experimental stage and presently the foods have an off-flavor problem.

Reheating or reconstituting frozen cooked foods in large quantities still requires conventional ovens or range tops or steam cooking equipment. Microwave ovens are still too small; distribution of "heat" is uneven; adverse flavor effects on some foods.

Frozen cooked fish tends to be dry and crumbly, rather than moist and flaky. Frozen cooked chicken lacks the succulence of unfrozen cooked poultry. Fried foods tend to lack a crisp crust.

The rapid growth of frozen cooked foods in household use can be attributed to the American housewife's willingness to experiment, to her need for occasional "convenience" foods. It is doubtful that many, if any, families make a steady diet of frozen cooked foods or that a family hostess would entertain guests, serving such foods.

A few processors are trying to produce a limited range of deluxe hot food items (Beef in Burgundy Wine, Coq au Vin, etc.). But the mainstream is one of mediocrity. The answer to growth of frozen cooked food in mass-feeding lies in recognizing its limitations and in substantially raising and maintaining quality standards. Concurrently, there must be enough variety to justify the elimination of equipment for bulk-prepared foods. "Short order" grilling, broiling, frying and sautéing equipment as well as ovens will still be needed.

Mr. Fred Schmid
Food Facilities Planning
Los Angeles, California

Here's how we at Fred Schmid Associates feel on the subject "No More Kitchens in the Future."

1. The kitchen as we know it today may change somewhat, but we feel it will be with us through the Twentieth Century, both here and abroad.
2. There will be an increasing number of commissary produced and convenience foods, and while these will have the effect of eliminating certain "manufacturing" operations in public feeding operations there will always be a considerable area devoted to kitchen or behind-the-scenes activities; such as, heating and serving equipment, salad and dessert preparation, employee facilities, storage areas (both cold and dry), dishwashing, etc.
3. Hospitals and industrial plants will be the principal outlets for pre-packaged meals which can be reconstituted or heated quickly and served. In this connection there will be continuing improvements in equipment and methods for reconstituting frozen and dehydrated foods.
4. Multiple restaurant operators will install their own commissaries in increasing numbers for the central preparation for most menu items. This will enable them to eliminate chefs or expensive cooks in their individual restaurants, control the uniformity of their products and their costs, and eliminate the expense of space and equipment in their new units. We have just helped complete such a commissary for an organization who operates six coffee shops here in Los Angeles.
5. While small operators will not be able to afford their own commissaries, there will be an increasing availability of acceptable pre-processed frozen and dehydrated foods through the larger food processing companies and suppliers.

Fred T. Hilliker
Food Service Consultant
St. Louis, Missouri

The elimination of the kitchen is going on right now and will continue to develop but it will never be fully encompassing. I estimate it may reach 50 percent of volume of all food served in mass-food services.

The types of operation most likely to utilize a "central food laboratory" are listed in order below:

- Vending machine operators.
- Transportation services.

- Industrial feeders.
- Schools and colleges.
- Banquet groups.
- Multiple-unit food outlets with popular-priced menus.
- Church and community functions and other catered groups.
- Hospitals (probably for visitors?)

The conditions that will promote this type of operation are (*in the order listed*):

- Greater development and improvement of food products pasteurized and preserved through the use of radiation.
- Greater utilization of pre-cooked, frozen menu items.
- Utilization of completely frozen meals, similar to the present TV dinner.

Like all novelties, the idea of doing away with the kitchen may have gone overboard and must be brought back to reason and zones of truly valid application. If pushed too hard (as was the Radarange) it may become faddish and suffer setbacks.

Mr. Keith Little
Kitchen Planning Consultant
Toronto, Canada

In reply to your questions regarding the article "No more Kitchens in Future," I think we would have to completely change our dining habits for this type of an operation to be acceptable. Probably in time it will have its place for special applications, but general acceptance will be a battle to change well established habits.

Electronic cooking is at best fifteen years old and the advances in this cooking since inception have been very limited. Advances have been made in pre-preparation and freezing of food but again there are a great number of items that do not keep their quality.

So far, most items must be pre-cooked, frozen, transported, stored, and re-constituted. I think we would have to take a good look at the cost picture of these operations and compare them to our standard type of operation.

This type of an operation practically precludes any personal preferences and we have few enough of these left now.

Twenty years ago, it was said that all food within five years would be quick frozen. Fifteen years ago, electronic cooking was to replace conventional methods in five years. While some advances have been made in the interval, the initial claims have not come true.

This does make a controversial topic and probably was meant as such.

Professor Peter Dukas
Dept. of Hotel and Restaurant Management
Florida State University
Tallahassee, Florida

An attempt to forecast stock market fluctuations six months in the future by projecting only present economic factors is on much safer grounds than predicting what will happen in our industry by 1975. In my opinion there are four basic factors that will influence and shape the food service industry as we know it:

1. World war.
2. The continuous expansion of power centralized in our federal government.
3. The ratio between the world's food production and the ever expanding population.
4. Innovations, inventions, and new developments in food processing and marketing.

The results of another world war utilizing the present knowledge of nuclear, chemical, germ, or electronic warfare are self-evident. There is very little value in contemplating the mathematical progression of a number or industry that begins and ends with zero.

The expanding world population and the current waste in all our natural resources shall sooner or later force increased regulation if we and our children are to survive. At the present time there is waste of our soil, waste of our water, waste of food at every level from the farm to the retailer. In our own industry, 3 million gallons of food are removed from our hotels and restaurants every day and thrown out as garbage. Poor purchasing, storage, processing, portioning are a few reasons for this shameful waste. In addition, each time a marginal operator enters the field with little knowledge of food, people, and business there is a waste of capital, credit, human and physical resources.

Moreover, as the government steps in to regulate and control the amount and type of food, and the methods of marketing and distribution the entire character of our industry will ultimately change. Even at present less than 10 percent of our eating establishments account for more than 35 percent of the total value of food eaten away from home. The trend continues to favor the growth of chain operations. However, if this trend continues, if the powerful chains do not accept the moral responsibility they owe to the public and if the government continues to be pressured by the forces of an expanding population and a dwindling supply of food, it is entirely possible that in fifty years we not only will not have kitchens but also no restaurants as they exist today. There may be a national agency controlling the flow of food from the farm to the consumer in every city in the United States.

The fourth factor regarding innovations, inventions and new developments and its effect on restaurants is already self-evident. Whether we speak of prepared frozen foods, boiled foods, pasteurized, radiated, dehydrated, or accelerated freeze drying, each of these or a combination of these developments have only begun to change and shape the restaurant of the future. Without mentioning names, there are already 6 pieces of kitchen equipment that are obsolete and not necessary in today's restaurant. In ten years there are several other major appliances that may not be needed. The kitchen of tomorrow will be drastically reduced in size as new methods of processing, better methods of distribution and storage, more productive, safer equipment is used to process food and to serve the customer. ■

Dean Howard B. Meek

Ave atque vale—*a milestone and not farewell is the keynote of the following notations about Howard Bagnall Meek who will be retiring as Dean of the School of Hotel Administration at Cornell University on July 1, 1961.*

During the past several months, dozens of associations and trade magazines have paid tribute to the man, the educator, the industrial leader and consultant. At Cornell, we value this recognition to our Dean but we hope to have him with us for many more years.

Dean and Mrs. Meek, after he has taught in Hawaii this summer, will continue on eastward around the world. During January and February of 1962, Dean Meek will provide assistance to the hotel and restaurant industry of Costa Rica for the International Cooperation Administration. Later in 1962 they will return to their lovely home on Highland Road in Ithaca. To them and to their daughter Lois Jean (now an architect) and to their son Donald (a lieutenant-commander in the Navy), Cornell is "home."

Many offers to head up as well as to participate in vital affairs of the industry have been offered to Dean Meek. It is the faculty's sincerest hope that the Meeks will continue to take an active interest in their affairs and those of the School, and that Dean Meek will continue to give energy to this magazine which he founded just one year ago.

For this reason, only Dean Meek's official biography and a few reminiscent anecdotes to mirror our affection for him are set forth here. More chapters will be written regarding his participation in industrial and educational affairs and these will appear in future numbers of The Quarterly.

Dean Howard B. Meek was born and raised in Chelsea, Massachusetts. He received his B.S. Degree from Boston University, his M.A. from the University of Maine, and his Ph.D. from Yale. In 1949 he received an honorary Doctor's Degree from Boston University.

During his college days, he worked during the summer months in resort hotels as many of his students do today. At this time he became aware of the fact that there were no schools for those who had the desire to become professional hotelmen. This is where the Dean's interest in hotel work and a hotel school had its beginning.

After graduating from college, Prof. Meek taught mathematics at both Maine and Yale. The Business School of Boston University invited him, in the spring of 1922, to come from New Haven twice a week to conduct a course pertaining to resort hotel work. This is believed to be the first university-sponsored training in the hotel field, but it was a limited program and was not recognized for credit toward a degree. In the same year the American Hotel Association became interested in the establishment of a full, four-year course in hotel administration, one that would utilize the resources of a great university, and one that would lead to a bachelor's degree. They came to the officials at Cornell and it was agreed to start such a school in Ithaca.

In the summer of 1922 the Association approached Dean Meek who was then operating the Ocean House at York Beach, Maine. He refused their offer saying he was through with education and was planning to devote his time and energy to hotel work. But remembering how he was bothered in his college days by the fact that there was no hotel school, Prof agreed to come to Ithaca to help design the curriculum for the new school though he still was definitely not interested in heading it.

However, Prof arrived in one of those beautiful fall seasons that Ithaca has the occasional good fortune to have and finally agreed to stay for two years to establish the School of Hotel Administration. He has never left—something that his students, past and present, are very grateful for. In 1954 the Hotel Department was made a separate School of the University and Prof was made Dean. In 1959 he was appointed first E. M. Statler Professor of Hotel Administration.

Prof's professional and educational activities include Membership in the American Statistical Association, American Economic Association, American Association of University Professors, Rotary International, (past president, local club), Ye Hosts, Cornell Society of Hotelmen, Phi Kappa Phi (past president, Cornell chapter), New York State Minimum Wage Board for the Hotel Industry, and the New York State Association for the Physically Handicapped. In the Ithaca community he has been Past President and Trustee of Tompkins County Memorial Hospital and Past President and Trustee of the Reconstruction Home.

With all of his work in connection with the School and the many organizations he belongs to, it seems amazing that the Dean has time for anything else, but he does, Prof likes to travel, take pictures, and is an avid sports and sailing fan.

The Dean has been married since 1924 to Lois Ann Farmer and they have two children, Lois Jean, and Donald Bagnall.

Dean Howard Meek's achievements in developing an outstanding course of studies is a lasting testimonial to his keen foresight. His leadership through the years confers upon us a debt that we shall always remember, but can never adequately repay.

The True and Unabridged Biography of H. B. Meek

Since the above biography was set in type, these notes, all verified by primary evidence of the type wholly acceptable to credulous historians, have come to light. We hasten to add them to the record.

—Editor

The School of Hotel Administration's Class of '61 has one member, who, though he never matriculated at Cornell, never took a course and yet has four college degrees, should be welcomed warmly into the Cornell So-

ciety of Hotelmen—for without him, they wouldn't be alumni.

The name of this candidate is Howard Bagnall Meek. As the record shows, he first saw the light of day in Chelsea, Massachusetts, some sixty-seven years ago in the middle of a bright blue October day—a good omen, 'twas said. As the record does not show (but it is reliably reported), his first spoken words were "Who owns this hotel anyhow?"

Now it is not generally known that little H. B. (as we shall call him from this point on) had an Irish great grandmother who was born on the old sod. And though she had passed on to her reward long before, she was present in spirit at his christening. "The poor, wee fellow against the great big world! And he's going to have red hair, too." So in his behalf, as she had good connections at a "high level," she sought out and arranged for a Guardian Angel to look after the wee fellow. This G. A. (as we shall call *him* from now on) in his earthly emanation is 6′ 4″ tall, strong as a tiger and has the voice of a lion.[1]

The years passed swiftly by. Young H. B. completed public school with honors, obtained a degree from Boston University and yet another at the University of Maine. Then he set out for Trinidad in the Caribbean where he was to work as an accountant. He was especially good at math.[2]

One night H. B. worked late on his company's books.[3] If he had taken the occasion to look up from his work, he would have noted a small winged creature that looked like a moth[4] charging at the ceiling fan like St. George doing battle with the Dragon.[5] Unbeknownst to him, his G. A. had at last caught up with him. And so, due to the combination of honest toil and his G. A.'s concern, H. B. slept late that Sunday morning and failed to show up for church, which it was his habit to attend. That Sunday an earthquake shook Trinidad as a cat shakes a rat and the church roof fell in, killing most of the congregation.

With this sign from Providence, H. B. quit the Island and sought to join Uncle Sam who was then doing battle with the Huns. The sergeant in charge of enlistment looked him over—all 5′ 2″—and said: "Ye've a brave heart, me lad, and ye'd make your country proud. But the Regulation Issue shoes wouldn't fit ye. Your record shows ye've a head for figures. Why not try to pound a little larnin' into the artillery, seein' as how they need it so bad?"

And thus H. B. wound up teaching math at Yale. When World War I was over, he thought it time that he look after his own fortunes. Having received a welcoming note from Standard Oil, he was all set to enter a career of personal glory and excellent remuneration. But this was not to be.

His Guardian Angel told him: "H. B., there's still duty to be done. Now the American Hotel Association is behind a movement to train better hotelkeepers at Cornell. And we "up here" feel under some obligation. Remember that in all Bethlehem, it was *only the innkeeper* who made Him welcome. Now this is a job that the Angel Gabriel could best put across, but he's too busy to get at it for another two or three generations and you're available. I must ask you to undertake the job."

Now H. B., having wrestled at New Haven with *academia studentia* on the fields of Pythagoras and Archimedes, was respectful but not too enthusiastic: "How long, O Guardian Angel, must I suffer to do thy bidding?"

"Forever and a day," glibly quoth his G. A., before taking a good look at H. B.'s face. Then quickly added, "Well, for a year anyway. Maybe by then we can figure out something else." (Which, of course, is just what G. A. had in mind, but I'm getting ahead of my story.)

Thus H. B. arrived in Ithaca one splendid September morning in a fine yellow Studebaker Touring-Sedan-for-Eight. "It's much too big for you," the salesman had said.[6] "How about a nice cozy Model-T Roadster Built-for-Two?" "I'll fill it up," H. B. replied with confidence.

And so he did. He filled the "Yellow Peril" with students to tour the nation's hotels, his office with books, and his classes with students from only Heaven knows where.[7]

Midway through the year he met a bonny lass named "Lois" with the disposition of an angel—a home ec teacher who could cook like a dream. (H. B.'s G. A. believed in leaving nothing to chance.)

And so they were married and lived happily forever after—for thirty-seven years thereafter at any rate—and their home was blessed with two little golden-haired angels who grew up into big warm-hearted, red-haired mortals. (But again I'm getting ahead of my story.)

There came a time—a score or so of years ago—when things weren't going too well at the school for the inn-

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[1] Some who have met up with G. A., after crossing swords with H. B. and pressing a little too hard, testify that this description is very accurate. Others (*mainly defaulting students, and their opinions must be discounted*) maintain that it is wholly inadequate: G. A. is 9′ tall, strong as an ox, and speaks with the voice of Doom.—*Ed*

[2] Still is.—G. A.

[3] He was 16 cents off on his trial balance and didn't believe in making up such differences from his own pocket, a philosophy he continues to practice.—G. A.

[4] H. B. crossed me up and sailed from Bangor instead of Boston. I had to assume this guise to catch the next air flight south—which just happened to be the Hummingbird Express. —G. A.

[5] I wasn't "battling the fan." I was trying to hitch a ride on the merry-go-round. Looking over H. B. can be dull at times, particularly on a Saturday night.—G. A.

[6] He couldn't see me. I was taking up the whole back seat. —G. A.

[7] HEAVENLY STAFF CODE No. MDCCCCXXII, Section 096824067 (*Earth-Western Division*) reads:

"WHEREAS it has come to our attention that worthy young men are appealing to us for guidance as to their choice of an appropriate mission in life on Earth

BE IT HEREWITH RESOLVED that from this Eon forward said appellants shall be directed to apply their efforts in behalf of mankind in duties that will help to assuage the hunger, thirst, and shelter needs of said mankind in the example of the Original Innkeeper.

IT HAS BEEN DULY NOTED that certain of our staff have already been active in conducting a program in a small corner at Cornell to make better this service."

—*as recalled by G. A.*

Editor: Wasn't this Code later revised to include mention of other worthy programs at institutions such as Michigan State, Washington State, Penn State, Florida State, Oklahoma State, New Hampshire, and Denver?

Yes, but I always tried to be on hand to help pick the Cornell applicants. The March storms were pretty rough on my wings—commuting first to Philadelphia, then to Chicago, Kansas City, Cedar Rapids, San Francisco, and back to New York City—I finally had to get some of the graduate boys to help out. After the War, when the air currents were disturbed by atomic blasts and fallout, I concentrated for a while on the Armed Services overseas where the air was less turbulent. At this time, I first became interested in foreign students.—G. A.

Editor: Did you always get the best applicants?

I admit we missed a few—shortage of scholarships, not being in the right place at the right moment, outside static and all that. But, on the whole, our batting average has been good. —G. A.

Dean and Mrs. Meek often took students on field trips. Pictured above aboard the U.S. President Roosevelt some thirty years ago are Dean Meek (*in center rear next to the tall student*) and Mrs. Meek (*seated at right*) with a group of seniors and faculty. Professor Emeritus Frank Randolph is seated next to Mrs. Meek.

keepers. They were housed about the campus in dungeons and in attics and ate crumbs and crow in other schools' kitchens. And On High there was a general feeling that the "pilgrims of service" had suffered enough on the rugged pathway of preparation.

So H. B.'s G. A. got together at a Heavenly Congregation with all the other G. A.'s assigned to worthy hotelkeepers.[8] Foremost among the chosen ones was E. M. Statler upon whom blessings had already been bountifully bestowed. It was with E. M.'s G. A. that H. B.'s G. A. connived. First, they planted an angel named "Alice" in E. M.'s office to glorify his days. And when E. M. was finally gathered unto his reward, the Hotel G. A.'s all convened once more. Thus it came about that the Statler Foundation was created.[9]

In this manner, many good things came to pass: Statler Hall, the Statler Inn, the Statler Club, the Statler Auditorium, the Statler Scholarships, dozens of other scholarships—and we've hardly yet begun! Many, many more worthy, fledgling innkeepers came to the School from afar to be trained and went forth Into the World to emulate the high goals and humanitarianism of the Original Innkeeper. The Angels in Heaven were all delighted. *His Will had been done!*

And thus, thirty-nine years after H. B. first committed himself to his one-year mission, his Guardian Angel thought he should be released. But when the G. A. made his announcement to H. B., he said with a twinkle in his eye: "H. B., there's still a few chores that need to be tidied up. Now, why don't you . . ."

—as documented by G. A.

Editor-in-Chief's Note: The foregoing represents more fiction than fact. But I would be the last to admit that there weren't "guardian angels," although most of them I've found to be very human. Thus I passed this "biography" with approval for publication, with the stipulation that it appear in very small print.—*H. B. M.*

[8] There's quite an extensive list of these people—E. M. and Alice Statler, Eugene C. Eppley, John McF. Howie, Lucius M. Boomer, Ray Smith, E. Schimmel, Frank McKowne, H. B. Callis, Frank Letchworth, Judge Montesano—but I could go on for days. You'll find a partial list in the School's *Announcement* under "History" and "Scholarships."—*G. A.*

[9] This true account may be disputed by some of the Foundation's Trustees and others who like to think that their good works are due entirely to their own ideas.—*G. A.*

"Prof" and His Faculty

"Prof," it is said, never met a student he didn't want to help nor a faculty member he didn't want to promote. He kept his faculty meetings always on an even keel, seasoning them with good, strong hotel and restaurant realities and exercising the wisdom of a Solomon.

A case in point is demonstrated by the incident of one Joseph Jones. (*The name is obviously fictitious for reasons that will be later developed.*) Joe had completed the last term of his senior year with the unflattering average of 69. For the previous seven semesters he had piled up a slightly more favorable cumulative average—74. But the University's rules unalterably read that a senior must maintain a 70 average "across the board" during his final semester to collect the coveted degree—unless (and this is written in *exceedingly fine print*) the faculty of his college can find ameliorating circumstances.

The case of The Faculty vs. Joseph Jones was called to order and the evidence presented.

Question by faculty member (asked with some horror): How did a fellow who has gone through seven semesters without flunking out ever end up with a 69 average?

Answer (from another unidentified faculty member): He was in the infirmary for ten days before he took his final exams and didn't have a chance to get his final reviews. He had a broken jaw.

Comment (from a feminine faculty member this time): The poor boy! No wonder he found it hard to pass his exams!"

Question: And how, may I ask, did he happen to break his jaw?

Answer (from still another unidentified faculty member): He got in a fight with some other fellows at the last CHA Beer Blast.

Comment (with passion): Now that all goes to show that those affairs should be abolished! Imagine getting into a fistfight at a School affair! He deserved the broken jaw and he deserves to be barred from getting his degree!

Question (s.a.u.f.m.): But who broke his jaw? Shouldn't something be done about the other fellow?

Answer: I don't know who delivered the *coup de grace*. But Joe got into a fight with the fellows who had shaved his head the night before.

Comment (from same faculty member who was ready to sacrifice Joe upon the altar of campus decorum): Well, if someone shaved my head, by George, I'd jolly well knock his block off the next time I saw him! Why on earth did they shave his head?

Answer: Because he dyed his hair black to go to a sorority masquerade.

Chorus: "How could he do such a thing!" "What's wrong with black hair?" "What a foolish, silly thing to do!" "Do you think that excuses him from getting into a fight?" "What's wrong in dyeing your hair anyway?" *(The latter from another feminine faculty member.)*

Everything hung in balance. The crucial question was: Is it permissible for a hotel or restaurant man to dye his hair in the interest of social appearance (and presumably therefore justifiable to get into a ruckus with those who object and hence meet his exams poorly prepared)?

With the wisdom of Solomon, Prof rose to the occasion: "L— B—* *dyed his hair.*"

Degree granted.

* * *

Then there was the case of the student from far-off India who wanted to take 20 hours one semester and thus petitioned the faculty to consider his case. The School's regulations plainly state that but 15 hours are permitted to each student for any one semester, unless he should attain the semester average of 80, upon which condition (rarely achieved) he may be allowed to enroll in 18.

Now this noble Indian lad had limited money and unlimited ambition. He slaved for 40 hours a week in the Statler Inn to earn his rice and curry. And he was willing and eager to slave four times 40 hours per week *(are there that many in a week?)* to pass these 20 academic hours.

"Should we let him flunk these courses or kill himself in the attempt to pass?" the faculty asked.

"Mr. L— hunts tigers with a one-shot gun," Prof replied.

Permission granted.

Footnote: Mr. L— did pass the full 20 hours with flying colors which only goes to show that his record for sharpshooting and Prof's judgment were not in error.

* Name withheld on the grounds that faculty secrets should not be divulged and no harm is intended to persons living or dead.

Cornellians Serve the Industry

Hotel, restaurant, and affiliated organizations have helped their industries by their public relations programs and intra-industry cooperation. The American Hotel Association, National Restaurant Association and the Club Managers' Association of America each have a Committee on Education to provide better-trained employees for the industry. These committees sponsor workshops at Cornell to present the most up-to-date and proven methods, and, in addition, promote meetings of this same type at the local and regional level. These associations also have committees on research assigned to upgrade the industry. Further, these organizations help the industry through their participation in community affairs, not only the composite group, but also as individuals.

Graduates of the School of Hotel Administration have helped the industry by their participation in and leadership of these organizations. This fact was borne out by a survey completed in July 1959.

A general questionnaire was sent out under the auspices of the Cornell Society of Hotelmen to about 2,000 of the School's alumni. Answers were received from 1,500 people, a 75 percent reply. The principal reason for the questionnaire was to bring up to date the addresses of members for the Society's directory. The administration of the School, feeling that Cornellians did participate and lead industry organizations, asked that the survey on leadership also be included.

From compilations of the 1,500 replies received, 394 men, or 26 percent, are officers or directors of national, state, or local organizations*.

As might be expected, the largest proportion of them are in hotel associations where 274, or 18 percent, are leaders. There are naturally fewer national organizations; nevertheless, 5 Cornellians have served as president of a national hotel association. The office of vice-president in a national hotel group has been held by 3 Cornellians; restaurant, 2; club, 1; food service, 2; and accountants, 1. A total of 10 men have held the office of secretary-treasurer and 18 others have been a director in one of the national organizations as divided in the above categories.

State or regional associations have shown their respect to Cornellians by electing 49 of them to the presidency of their hotel group; 9 were also elected to this office in restaurant associations; and 2 each in the hospital and club fields. On a local basis, the survey shows that graduates have served as president for 48 groups, 9 in restaurants, and, again, 2 each for hospitals and clubs.

State groups have elected Cornellians as their vice-president on 56 occasions; 43 being hotel, and 10 being restaurant organizations. Another 25 have been selected as secretary-treasurer of their respective associations and 89 alumni have successfully served as a member of the board of directors.

* Under this survey, national organizations include foreign countries as well as the U. S., and state or regional officers are included in state or provincial organizations of foreign countries.

Once again on a local level, a total of 14 Cornell graduates have been vice-presidents; another 20, secretary-treasurer; and 27 more, members of the board.

Why have these various organizations asked Cornellians to lead them? We feel that it is because these men have taken the initiative and have wanted to help their respective industries, be it hotel, restaurant, club, or hospital. And they have shown through well-run management of their own operations that they have the capability to lead these organizations.

E. M. Statler said, "The one who progresses is the one who gives a little more, a little better service." Cornellians help the industry to progress.

Cornellians elected	Associations		
as Officers:	*National*	*Regional*	*Local*
Hotel	12	106	69
Restaurant	4	23	15
Club	3	9	6
Other	3	3	7
as Directors:			
Hotel	10	62	15
Restaurant	5	22	11
Club	3	4	1
Other	0	1	0

—Submitted by Peter M. Marker, Cornell '61

I. S. "Sam" Anhoff

It is well nigh impossible to summarize with any degree of justice the philosophy and accomplishments of I. S. "Sam" Anhoff. Serving the food equipment industry, his community, and mankind for over fifty years, Sam (as he is affectionately known throughout the industry) has had a wide range of endeavors.

Orphaned at an early age, Sam grew up in the Jewish Orphan Home (now Bellefaire) in Cleveland —an organization to which he has given filial devotion and support for many years. Funds were sparse at Bellefaire at the turn of the century, which motivated the young Sam to find work after school in hotel and restaurant kitchens—menial, hard work with long hours and little pay but offering an abundance of food. Unknowingly, he was laying the cornerstone for a most meteoric and astonishing career.

Attracted by the bustle of fast-growing Chicago, Sam was soon hired (January 1911) as a clerk in Albert Pick & Co.'s billiard department. Six years later he was made manager. When the billiard department was sold, Sam was transferred into sales and then into executive work—later becoming Pick's sales manager and vice president.

When the depression forced Albert Pick & Co. into receivership, Sam was appointed the general manager. He reorganized the company so successfully that he was made president and general manager in 1932, a title he held through three changes of ownership. In September 1958, Sam became executive vice president of the Equipment Manufacturing Co., the position he now holds.

Mr. Anhoff's fifty years in food equipment manufacturing, rising from young clerk to chief executive officer, might have been sufficient challenge for a lesser man, but this career is only one aspect of his many contributions to the food service field.

Sam was among the group that formed the Food Service Equipment Industry, Inc.—an outgrowth of the National Recovery Act of 1933. When the N.R.A. was declared unconstitutional in 1935, this group, already closely bound by mutual interests, decided to continue. Sam served as president of F.S.E.I. from its inception until 1947, when he was made a Life Member. He still serves as chairman of the executive committee.

Another group benefiting from Sam's leadership is the Dealer Cooperation Program of the American Gas Association. This program, initiated by him in 1934, is a cooperative effort between the Food Service Equipment Industry (of which he was then the president) and the American Gas Association. It recognizes the dealer as the proper source for the sales distribution of commercial gas cooking equipment. Setting up and maintaining this program—which incidentally benefits the customer as well as the dealer, the F.S.E.I., and the A.G.A.—has required continuous hard work. Today, Sam heads up the Cooperating Committee for the program.

The National Sanitation Foundation is one more beneficiary of Sam's endeavors. In 1948, after working with the Foundation for two years, Sam was made chairman of Panel No. 6 of the N.S.F. Clinic where many of the various food service equipment standards were first developed. He has further taken a deep interest in N.S.F.'s financial problems and has directed its campaigns for support. The present plan of inspection fees, which he recommended, has helped bolster N.S.F.'s finances, but—Sam reminds us—the N.S.F. still needs a better solution for its financial support and he is working on the problem. Presently, Sam is a member of N.S.F.'s Industrial Advisory Committee.

Education is another branch of Sam's vast and active interests. As chairman of the Founders' Committee of the Food Facilities Planning program at Cornell University, Sam helped to raise the initial $20,000 needed to start the program. Since then, his committee has raised an additional $65,000 and hopes to obtain another $10,000 soon to assure its professional development. Sam now heads the public relations and fund raising committee of the liaison group working with the industry and Cornell University.

This program was first launched in Cornell's School of Hotel Administration in 1957 under the direction of the late J. Earle Stephens, who had been appointed a full professor. A few months after instruction began, Professor Stephens died and his brother, Ray Stephens, who had been associated with him in his firm, came out of retirement to head up the program. Since 1958 the program has been directed by Prof. O. Ernest Bangs of Stephens-Bangs Associates, Inc., Detroit. Several Cornell graduates have already qualified for jobs in food service design and this June the first two students with a major in Food Facilities Planning—Ronald Koozer and William Eaton—will be graduated from Cornell University. Many others are following in their footsteps. Thus Sam has been able to realize another of his dreams.

Convinced that every good citizen owes a duty to his community, Sam became a director of the Chicago Convention Bureau in 1943 and served as president of this organization from 1947 to 1952. He was instrumental in starting the first U.S. International Trade Fair held in Chicago during August of 1950. This trade fair has now been taken over by the Chicago Association of Commerce & Industry because of its great success.

A warm-hearted man, Sam's love of humanity extends beyond his immediate family—his wife Flo, two sons (Seymour and Phillip), and five grandchildren. He holds major executive and fund-raising posts with several philanthropic groups that aid young people. In addition to serving as vice chairman of the executive committee of the Bellefaire home in Cleveland (on whose board he has been a member for thirty-odd years), Sam is also a member of the board of the Mark Nathan Jewish Orphan Home in Chicago and the Jewish Children's Bureau. He has been president of the board of the latter organization from 1956 to 1959.

Since 1954 Sam has been executive vice president and head of the executive committee of Chicago's Off-the-Street Club, an organization begun in 1901 to help children in work and at play during off-school hours. This club maintains a city headquarters for 2,000 children and also operates a summer camp for them.

Dozens of other activities and offices could be listed in any relation of Sam's career. This partial accounting is meant to be a tribute to Sam Anhoff—industrial executive, philanthropist, educator, community leader, and a true gentleman in every sense of the word.

HARRY R. FRIEDMAN, a founder and a former president of the International Society of Food Service Consultants, is known on several continents as one of the foremost designers of food installations. Maintaining offices both in Miami Beach, Florida, and in Aarburg, Switzerland, he has planned installations in the United States, Europe, Central and South America, the Islands, and in Canada.

Starting his career as a draftsman in the Chicago offices of Albert Pick & Co. in 1925, Mr. Friedman detoured briefly through Texas and Louisiana, planning food service layouts during the depression, before planting his standard on the Miami Beach hotel front.

At the time Mr. Friedman arrived in Miami Beach it wasn't unusual to have thirty luxury hotels going up each year. His competence was quickly recognized to the extent that he has been responsible perhaps for more hotel food installations than anyone else in his field.

To name but a few hotels for which Mr. Friedman planned the food installations, the list would include the well-known Americana, the Eden Roc, the Diplomat, and the Dupont Tarleton in the Miami Beach area, the Riviera in Las Vegas, the Havana Riviera, and the Hotel St. Gotthard as well as the Mövenpick restaurant in Zurich, Switzerland.

Mr. Friedman's great interest in gourmet restaurant operations began during a trip to Europe six years ago. Since then he has spent three to four months out of every year on the European continent, traveling widely and planning gourmet-type operations.

Presently he is planning the food facilities for three New York City hotels—the Americana, the Summit, and the Riverview—and at the same time conducting several projects through his European office.

Busy though he is, Mr. Friedman takes a genuine interest in building up his profession and in encouraging young folks to enter this fast-growing field. As one of the ardent supporters of the food facilities planning program in the School of Hotel Administration at Cornell, he often shares his wide experience through lectures to the students.

A highly organized man, Mr. Friedman takes a streamlined approach in communicating his basic consulting material. He has developed several collections of colored slides which he has synchronized with a sound track. This automatic presentation can be stopped at any point for questions and further explanations. His "mobile library" in itself provides a basic instruction program for teaching young people.

The best rosebush, after all, is not that which has the fewest thorns but that which bears the finest roses. —*Henry van Dyke*

If thin, don't eat fast. If fat, don't eat; fast.

(continued from page 4)

Apparently the grocery store industry in recent years is expanding sales volume at the expense of the restaurant industry. Evidence would indicate that this trend will continue, especially during the next few years while the economy generally is swinging upward. While there will be more business for the restaurant industry, as business generally improves, our share will steadily decline unless several changes are made in the industry.

Economic Cycle Affects Luxury Dining

Within the restaurant industry itself there is, of course, considerable variation. Higher priced restaurants, in general, suffered a greater decline during the current recession than did lower priced establishments. Consequently, higher priced restaurants can now expect a greater improvement with the general upswing in the economy.

Our first conclusion, therefore, is that there will be more business for most retail trades within a relatively short time. Restaurants will get some of this increased business and we can expect industry sales to rise but not at the same rate as the retail trades generally, and not at the same rate as grocery stores. High priced restaurants will get faster increases than lower priced establishments. How many restaurants will be competing for this additional restaurant business is another question.

Fewer Restaurants Garner More Sales

The average restaurant is growing in sales volume. From 1948 through 1958, the average establishment has increased its sales volume about 43 percent. This is approximately the same increase in sales per restaurant as the industry as a whole has enjoyed. The increase in sales volume per restaurant is not just a result of price increases for restaurant meals. Although rising prices explain the major portion of the growth, there has been a rise in the average amount of food or meals sold per restaurant of ½ of 1 percent per annum.

Sales Curve Leveling Off

We expect the sales volume of the individual restaurant to continue its rise, but now most probably at a lower rate than in the past. The average eating and drinking place had annual sales of $30,827 in 1948; $40,984 in 1954; and $44,095 in 1958.

While sales volume has increased in recent years therefore, the percentage rate of increase seems to have slowed rather noticeably. Efficiencies of operation, higher land and equipment costs, and the expanding population have joined in creating a tendency toward making larger restaurants more economical. Higher labor costs will force this trend to continue in all probability.

Number Not Increasing

In examining restaurant establishments, we find that in number there are about as many places now as there were in 1948, despite the population growth of recent years. This number of eating and drinking places should remain approximately the same in the foreseeable future, although a prediction in this area is both difficult and dependent on many uncontrollable variations in the economy of the country.

The increasing popularity of franchises since 1954 has probably fostered some growth in the overall number of restaurants and undoubtedly is responsible for reversing the downward trend in the number of restaurant establishments between 1948 and 1954. Since 1954, when franchise growth began its rise, the industry has shown an increase of 2 percent a year. This trend continued from 1954 to 1958 but we have no information with respect to later years. We suspect that the total number of restaurant establishments has remained relatively stable during the past two years.

Prediction: Bigger and Fewer Restaurants

We predict that competition for new restaurant business will not be from an increase in the number of restaurant establishments. Basically the real competition will come from the food stores.

There will be considerable room for expansion in the restaurant industry, but this will be made up primarily from the substitution of more efficient and better-managed restaurants for those of poorer quality.

To remain profitable, the average restaurant will need to increase sales at least 4 percent per year. There simply is not going to be enough restaurant business available to warrant expansion of overall industry capacity. Thus restaurants will get bigger but fewer in number and new lines may be introduced to expand sales.

Will the Restaurant Industry Price Itself Out of Its Market?

Restaurant prices have shown a strong tendency toward disproportionate rises. We are fearful that a continued upward trend will have adverse effects on industry growth in the future. Since 1953, restaurant prices have risen approximately 2.8 percent per year. Presently there is indication that this trend will continue at about the same rate.

Admittedly we have predicted a rise in sales to correspond with the general economic recovery. But how much of this sales increase will be more restaurant business and how much will be merely an increase in prices?

No Real Growth in Sales

Sales have jumped 3.3 percent per year during the last seven years. Regrettably, the major portion of this increase has been absorbed by higher prices and this forecasts a rather dismal outlook for future industry growth if the apparent trend continues. With sales increasing 3.3 percent per year on the average, and prices going up 2.8 percent over a like period, the actual increase in restaurant business is a rather unimpressive ½ of 1 percent.

Pricing in Other Industries

Perhaps our belief that restaurant industry pricing practices have been harmful could be supported by comparing our pricing practices with those of retail and grocery industry groups.

Statistics show that retail industries were able to improve sales 29.8 percent by only increasing prices 12.1 percent. In the same period of seven years, the grocery industry ballooned its sales 38 percent, with a 6.9 percent rise in prices. Thus the retail groups more than doubled sales over price increases and the grocery group increased sales 5½ times the price increases.

Higher Prices But No Gain

Was the restaurant industry able to show a comparative gain? Certainly not according to our figures. Our industry chose to raise prices 19.9 percent and as a result was only able to accomplish a sales increase of 23.4 percent.

Several conclusions can be gleaned from these facts. We have not learned to compete effectively with the grocery industry. And unless positive efforts are made through better management to overcome this dilemma, the restaurant industry is in for some very rough times ahead.

A further cause for industry concern is the apparent willingness on the part of our establishments to continually pass on increased costs to the consumer in the form of increased prices. The consumer has reacted negatively and the restaurant industry is losing its share of the consumer dollar.

Therefore, we doubt the wisdom of continually increasing prices. If this trend continues, the restaurant industry will truly price itself out of its market!

Our conclusion is that, although sales will rise, most of the increase may be merely an increase in prices. These rising prices will lead to a smaller share of the market. Perhaps a better solution to rising costs is to control them instead of passing them on to a consumer unwilling to accept them.

Are Industry Costs Out of Hand?

Despite many opinions to the contrary, the cost of food has declined over the last few years. In contrast to the upward movement of wholesale prices in general, food costs to the operator are approximately 3 percent below 1953 levels. At the same time overhead costs have risen slightly as reflected by higher fuel and power costs.

Payroll Greatest Worry

The cost that gives the restaurant industry most concern is the cost of labor. Herein lies our greatest problem. Facts indicate that payroll in the restaurant industry has increased 27.5 percent faster than sales between 1948 and 1958. If this trend continues, payroll will necessarily take a larger and larger share of the dollar spent in the restaurant. As a result, prices will be forced up further and we will lose more of our share of the consumer dollar as fewer people eat out.

You might inquire here whether increases are providing the industry with more productive workers? Evidence seems to demonstrate the contrary. Since 1948, the number of employees on payroll in the industry has increased 18.9 percent. For the same period sales of restaurants with payroll rose 43.5 percent. Sales per employee rose only 20.7 percent for the period. Prices rose 19.9 percent. Thus production per employee remained approximately the same for ten years.

Evidently then, the caliber of restaurant workers is not improving appreciably. This poses a serious problem to the restaurant operator who has raised the wages of his employees about 31 percent since 1948. How can he operate profitably if he must increase the earnings of his employees approximately 10 percent more than the increase in sales these employees are producing? This seems a quick route to bankruptcy.

It is an indisputable fact that the cost of restaurant labor is by far the most serious problem of the industry today. We feel it threatens the very existence of many present restaurant operations.

Management's Opportunity

Sales of the restaurant industry will continue to expand but increasing labor costs will necessitate greater efficiency and better management. There is strong evidence that the industry will be forced to make many changes in the immediate future. During these times of change there will definitely be an emphasis upon more scientific management. Since these changes will be industry-wide, there will be unlimited opportunity for the trained operator. ■

(continued from page 5)

I believe the change is more a matter of pure economics. It costs somewhere in the neighborhood of $2,000 per seat to build, furnish, and equip a restaurant. The figure may vary from $1,500 for a counter seat in a coffee shop to $2,500 or $3,000 for a captain's chair in a Polynesian paradise. Annual food and beverage sales per-restaurant-seat range as shown in Table 1 below.

The typical hotel restaurant makes a departmental profit of about 15 percent on food and beverage sales. Charged with a fair portion of overhead, taxes, insurance, etc., the net profit would be about 6 percent. Return on investment in hotel restaurants, therefore, can be computed roughly at 5 percent in the old-style dining room or the coffee shop patronized mostly by hotel residents, against 20 percent in the specialty restaurant and the coffee shop patronized by outsiders as well as hotel residents. The familiar and once typical hotel dining room just isn't worth the cost in many instances.

The question often rises as to the economic justification of banquet facilities. Investment per seat runs lower for function space because only 10 square feet or less per person is required in the banquet dining area. Because hotel kitchens have been constructed of adequate size for peak demand in the hotel restaurant, very little additional preparation and storage space are needed for banquet service. However, even if we estimate the investment for banquet space at a modest $1,000 per seat, it is difficult to justify the space that is needed on food and beverage sales alone.

An annual occupancy in excess of 40 percent is seldom achieved in banquet space, and annual per-seat volume is in the area of $400–$600. A net profit of 10 percent would be necessary on that volume to produce a modest 5–6 percent return.

Why then do hotel operators build function space? The answer is that no one has yet found a way to do without it if convention business is to be obtained. Very few hotels can exist on convention business alone, but also very few can get along without the combined food, beverage, and rooms income that group business provides. Groups demand the ancillary facilities, and in that area of the industry particularly, it is a buyer's market.

The true value of convention business, far outweighing the problems of the low-profit services that must be provided, lies in the more complete utilization of all the existing facilities of the hotel. Most hotels have function space that is normally idle unless there is a convention in the hotel. Group business helps to eliminate some of the valleys in the occupancy pattern, enabling hotels to maintain a normal staff in spite of the fluctuations in regular demand for accommodations. Some hotels have a room occupancy of nearly 100 percent on Tuesday nights and one as low as 40 percent on Friday nights. There are also sharp seasonal variations. If conventions can be scheduled during the slower period, they may help greatly to keep the hotel profitable.

No analysis of the trend in hotel restaurant operations would be complete without a word about costs and expenses. The tabulation in Table 2 shows very clearly the recent trend.

TABLE 1

Annual Hotel Food and Beverage Sales Per Restaurant Seat

	Per Seat Annual Volume
1. Hotel coffee shop—resident patronage	$1,200- 1,500
Hotel coffee shop—high outside patronage	5,000- 6,000
2. Hotel dining room—old-style, resident patronage	1,500- 1,800
Hotel dining room—high outside patronage	2,500- 3,000
3. Hotel dining room—with entertainment	1,600- 2,000
Hotel dining room—specialty restaurant	6,000-10,000

TABLE 2

Trend of Costs and Expenses in Hotel Restaurants, 1956-1960

	Medians of Transient Hotels			
	Under 500 Rooms		*Over 500 Rooms*	
	1960[1]	*1956*[2]	*1960*[1]	*1956*[2]
Food cost per dollar sale (3)	38.5¢	38.6¢	32.0¢	33.4¢
Beverage cost per dollar sale	34.0¢	36.6¢	32.5¢	33.9¢
Payroll	34.6%	32.8%	37.0%	36.1%
Other expense	11.4%	12.0%	12.0%	11.4%
Departmental profit	15.0%	15.8%	19.5%	20.2%

(1) Preliminary
(2) Hotel Operations in 1956
(3) After credit for employees' meals

The cost of merchandise has been kept in line; in fact the ratios of costs to sales are slightly lower today than five years ago. Payrolls have gone up and with sales volumes which have been declining at worst or have risen only slightly at best except in a few cases, profits are lower than in 1956.

There is no doubt in my mind that the pattern of conversion of hotel dining rooms to specialty restaurants will continue. It appears to be one way of keeping the overnight guest in the hotel for dinner and of attracting local residents to the hotel.

The suburban restaurant and shopping center and the family TV-set have definitely hurt the downtown entertainment centers of most cities. There will probably be some reversal of the trend in the future, just as there has already been some movement back to city apartments from the suburbs. Two types of hotel restaurants will become more and more typical: (1) the coffee shop or popular-priced, high-turnover dining area; and (2) the "theme" room for entertaining and leisurely dining in exotic surroundings.

In the former, the use of pre-packaged foods, which are simple to prepare and ease problems of portion and quality control, will help reduce costs and maintain profit levels. In the latter, trained specialists will prepare the special dishes which will continue to attract well-heeled customers to whom price is no object. High annual dollar volume per seat adequately covers higher cost ratios and justifies the investment.

With the two types of dining facilities just described, a hotel will be able to meet the requirements of a majority of its room guests and also attract outsiders. Other types of restaurants will provide the intermediate categories, but only the very large hotels or those with exceptional locations will have public dining facilities other than the specialty restaurant and the coffee shop. Function space will be more and more a part of hotels specializing in convention business and more and more questionable economically. For the hotel man with food training, the future holds bigger challenges than ever.

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Hourly Wages in Hotel Restaurants, March-June 1960

Source: "Wage Structure-Hotels," U.S. Department of Labor

Compiled by A. Dennis Fitzgerald, Cornell '61

Area	Second Cooks	Pantry		Dining Room (Exclusive of Tips)		Dishwashers		Bartenders (Men only—exclusive of tips)		
	Men only	Men	Women	Waiters	Waitresses	Men	Women	Average	Public Bar	Service Bar
Northeast										
Boston	$2.44	$1.36	$1.29	$0.83	$0.73	$1.16	$1.17	$1.89	$1.85	$2.02
Buffalo	—	—	1.06	.78	.73	1.01	1.03	1.88	1.87	—
Newark and Jersey City	2.24	1.43	—	.62	.57	.94	—	1.51	1.50	—
New York City	2.75	1.67	1.59	.88	.90	1.46	1.43	2.00	1.96	2.08
Philadelphia	3.01	1.22	1.13	.66	.63	1.04	—	1.62	1.60	1.65
Pittsburgh	2.74	—	1.43	.87	.75	1.44	1.33	2.15	2.15	2.17
South										
Atlanta	1.12	—	.65	.19	.20	.45	.43	1.40	1.44	1.32
Baltimore	—	—	.64	.32	.28	.58	—	1.08	1.04	—
Miami	2.19	1.48	1.36	.65	.55	1.01	—	1.31	1.30	1.49
New Orleans	1.45	—	.53	—	.29	.54	—	1.12	1.15	—
Washington	2.79	1.21	1.10	.76	.67	1.06	1.06	2.17	—	2.18
North Central										
Chicago	2.63	1.26	1.26	.84	.78	1.17	1.19	1.94	1.86	2.13
Cincinnati	—	—	1.15	.74	.71	1.13	1.00	1.83	1.83	—
Cleveland	2.29	—	1.10	.79	.74	.89	.88	1.90	1.90	—
Detroit	2.55	—	1.26	.90	.84	1.16	1.12	1.96	1.96	1.99
Indianapolis	2.05	—	.76	.50	.31	.65	.57	1.57	1.57	—
Kansas City	1.84	—	.92	.64	.58	.84	.84	1.64	1.63	1.74
Milwaukee	2.36	—	1.21	—	.81	—	1.08	1.97	1.96	—
Minneapolis-St. Paul	2.25	1.34	1.36	1.06	1.05	1.17	1.15	2.06	2.07	2.03
St. Louis	1.84	—	1.14	.73	.73	.94	.85	1.81	1.79	1.95
West										
Denver	1.88	—	1.12	.83	.83	.89	—	1.60	1.60	1.61
Los Angeles-Long Beach	2.56	1.97	1.84	1.10	1.12	1.37	—	2.02	2.00	2.14
Portland	2.09	—	1.48	—	1.14	1.24	1.24	2.26	2.25	—
San Francisco-Oakland	2.57	1.98	1.94	1.32	1.36	1.62	1.63	2.65	2.67	2.60

(continued from page 7)

thinking of most of the industry. Every effort is made to encourage the young who wish to enter the industry and to provide them with educational facilities.

Many Europeans express an interest in an exchange program for the students in the industry. They would be happy to see some of their finest young men and women come to America. In exchange, they would welcome young Americans where their labor laws permit it.

Cost Stabilization and Mechanization

A foremost problem of the restaurant industry on both sides of the Atlantic is the problem of cost push resulting from higher labor and material costs. The American standard of 30 percent to 40 percent labor costs is no more worrisome to us than the European standard of 18 percent to 27 percent labor costs is to them. Material costs, on the other hand, and taxes in Europe, are if anything higher than ours. Thus, both industries are caught in a cost-profit squeeze.

Mechanization

European restaurants have fewer mechanical devices than American establishments. By our standards, their services would be intolerable cost-wise. The American industry would probably have a 45 percent to 55 percent labor cost if an attempt were made to produce the lavish service frequently encountered in Europe. But the European restaurant industry is not backed by the extensive supply industry which has developed in this country. Thus the concern for their future.

A prominent restaurateur in Paris, who owns and operates one of the top establishments in that city, estimated a ten-year future life for his business based on the continued upward push of costs. He said that he would run out of market as he continued to adjust his prices upward above their present level. Admittedly at this time, his is a lavish establishment where no thought is given to service costs. He does, however, have well-controlled supervision.

Cost Controls

Surprisingly, European men seem to know less about their costs on a day-to-day basis than Americans. Traditionally, their interest has been in product and service, and less in cost. They realize, however, that the cost of restaurant services in Europe has risen rapidly and that continued price increases may not be possible.

In America, restaurant men have been conscious of productivity costs for many years. They have eagerly accepted costly mechanization wherever it was available to them as their only answer to cost push. Efficient layout, better marketing, and greater emphasis on the utilization of resources have kept the restaurant industry alive and healthy in America. Europeans are beginning to accept the necessity for adopting this same philosophy.

Conclusion

It is difficult to assess whether European restaurant problems are more mature and more difficult than American problems. But this much is certain – management on both sides of the ocean will benefit from mutual exchange of operating information. Each industry has made a unique contribution to the field. Mutual examination of something more than the cultures of the two continents will be more than beneficial in the future.

Requiem for a Restaurateur

The *New Yorker* magazine relates the passing of Philippe, proprietor of a bistro in Manhattan's East Fifties, and suggests a suitable wake for the habitués:

> ". . . Philippe had passed from being a distressing ghost to being a skeleton who rattles and will not get into the cupboard and be still. . . . it might have been a good idea for Philippe's colleagues to greet every returning old customer with a glass of champagne in which to toast their dead friend, but this was not done. . . . I hope that his next incarnation . . . will be amid pleasant sounds that would have been familiar to him . . . the kitchen at its busiest, the sounds of the corks being drawn from bottles and of ice being shaken and of knives and forks and of waiters' questioning voices and of customers in cheerful conversation over a good dinner, sounds that we all know and that signify perhaps the most amiable moments of our days."
>
> —*adapted from* The New Yorker, *December 31, 1960*

(continued from page 50)

Moreover, he can prepare and interpret a profit-and-loss statement, a job description sheet, a labor-union contract, a menu, a standardized recipe—not to mention the detailed specifications for anything ranging from a new refrigerator system to a can of tomatoes—and do all these varied things with equal facility.

Most important of all, perhaps, this new recruit, having had excellent preparation in personnel administration and in human relations, has the basic know-how to harmoniously elicit the best efforts from the culinary employees and also from the professional dietitian when he is fortunate enough to have one in his organization.

The Need to be Realistic

The service industries in the American economy are changing rapidly. In food service, the rate of change is so fast that it matches the pace in electronics. This means, regardless of our nostalgia for "things past and things remembered," our industry cannot operate under standards that met the criteria of 1920. We must accept the food facts of 1961 and be prepared to master those of the future.

Paring Payroll Costs

Prof. Matthew Bernatsky, at a recent Cornell Workshop, recommended that hotel operators schedule their employees to get maximum productivity during the workweek. Department heads, for planning their work schedules in advance, should be provided with the manager's forecast on business definitely booked and anticipated. For the public dining rooms and coffee shops, an additional forecast, based on previous similar week periods, should be drawn up.

Waiters, even when unionized, prefer schedules that permit them to serve the greatest number of guests and thus earn the highest tips. In slow periods, as during summer months, part of the dining area can be screened off from view and closed to advantage and no temporary workers hired as replacements while the regular staff is on vacation.

Similarly, part of the dining area can be screened off during slow days of the week, such as Saturdays and Sundays in downtown hotels. Many waitresses, particularly those with families, prefer to work every other weekend instead of every weekend. When each is busy serving the maximum number of guests, her gratuities are larger.

Controlling Bacterial Growth

A clean kitchen may or may not make a food service operation sanitary, Com. Leslie E. Bond, U.S.N. (Ret.) told participants attending the Seventh Annual Hotel Management Workshop at Cornell. A kitchen may appear to be spotless, yet bacteria flourish unseen by the eye.

How sanitary a food service operation really is depends upon how the six links in the chain of bacterial growth are controlled, Commander Bond said. These six links are:

1. *Unsanitary Food:* It is impossible to eliminate bacteria completely in any food service operation.
2. *Transportation Vectors:* Bacteria move only about 1 inch in a lifetime so to become prevalent they must be transported. Flies, roaches, other insects, mice and rats all furnish transportation but human hands are the most prolific germ carriers of all.
3. *Nutrient:* Bacteria need nourishment in liquid form in order to grow. While dry foods and frozen foods do not provide this nutrient, most food, when served, is in a semi-liquid form.
4. *Temperature:* The ideal temperature for bacterial growth is the same as that of the human body—98.6° F. but the range now considered as favorable to bacteria growth of various types is between 40° F. and 150° F. The holding temperature for food provides an almost ideal climate for bacterial development.
5. *Time:* Bacteria double in four hours' time when they have nutrient and an ideal temperature.
6. *Ingestion:* Unless the bacteria (or agents formed by bacteria) in food are consumed, they do not harm human beings.

The best of these six links to control bacteria growth is probably temperature; that is, keeping foods stored at below 40° F. or heated above 150° F. Time is the second best factor to control. Thus small-batch cooking of food for immediate service is recommended rather than large-quantity preparation with a long holding period. Rapid cooling of food to be stored is another essential precaution.

As for leftovers, the best rule to follow is "When in doubt, throw it out." Management should back up the worker who exercises his doubts about the wholesomeness of food that has been leftover or stored for some time.

Above all, Commander Bond emphasized, clean hands for food service workers and clean utensils and working equipment are a "must" if the food service operator hopes to control bacterial growth.

(continued from page 9)

er (or his representatives) is discouraged from requesting changes, and justly so. Changes at this time can cause a chain reaction of revisions in the layout and design of adjacent areas. This is especially true in developing a food facility. Moving or altering an item of equipment may involve changing or moving another and yet another item of equipment.

To the layman, the problems involved in changing or moving a piece of equipment may seem unimportant as it affects the overall project development. And, in a way, it wouldn't matter much if the change didn't affect the work of the architect as well as that of the structural, the mechanical, and the electrical engineers. Late changes may cost the owner an additional architectural and mechanical engineering fee.

On the other hand, changes that can be made on drawing paper are economical in comparison to the great expense involved in changing a building constructed of brick, tile, concrete and reinforced steel, or a facility fabricated of 12, 14, and 16-gauge stainless steel.

Establish Objectives Early

While changes on the drawing board are better than changes in the physical structure, it is far, far better and much, much less expensive when the owner can be instructed in the art of establishing his principal objectives very early in the preliminary programing. Then his ideas can be refined and further developed during the preliminary planning period. When the overall project plan reaches the stage of working drawings and written specifications, each phase of the entire project will have been thought through and developed to the point where no major changes will be required.

Eight Basic Steps in Planning

Eight basic steps in the procedure for the overall development of a project should be reviewed as early as possible and before progressing beyond the initial concept of the food service facility. These steps, in the order of their development, are:

Purposes to be accomplished by the owner, consultant, architect, engineers, and the using agent:

(Project to be programmed, planned and developed, built, appointed, equipped, organized, and put into operation.)

1. Preliminary programming to be developed.
   - A. Principal objectives to be established. (*See "Objectives" outline.*)
   - B. Draw up master prospectus of the overall project.
2. Consultant, architect, and engineers to be commissioned.
   - A. Meetings to be scheduled with owner and his representatives along with the professional staff to review the prospectus and then observe the progressive development of the design program step by step.
3. Overall program and plans for the building to be completed.
   - A. Building or building site to be selected, surveyed, and made ready.
   - B. Building to be planned and designed.
4. Food facilities program and planning to be completed:
   - A. Dining rooms and the food and beverage departments to be planned and layouts made.
   - B. Food storage and production equipment to be selected and designed and the kitchen departmental layouts made.
   - C. All of the above layout work and planning to be closely correlated with the architectural design and engineering.
5. Preliminary renderings (*i.e., preliminary planning*) to be approved by the owner.
   - A. Approval to be made before further progress by the architect and engineers.
6. Working drawings, plans, and specifications to be drawn up, the same to be approved by the owner and then the project is to be put out for bidding.
7. Contracts to be awarded; building to be constructed, decorated and appointed; equipment to be installed; utilities to be connected up; and then all equipment started up for testing.
8. When completely installed and tested, all facilities to be checked out and approved for acceptance by the owner; the using agent to be instructed as to proper use and maintenance of all facilities; finally the using agent will organize his staff and the establishment put into operation with a minimum of delay. Grand opening date comes later after the "shake-down" cruise.

Principal Objectives in Preliminary Planning

Are you contemplating the plans for a completely new food service operation? Or, are you planning to rehabilitate an existing food service establishment? Regardless of the type or size of this venture, whether it is a new or an existing operation, the desired results are better assured when you take the necessary time to establish the principal objectives early in the nucleus planning period.

To establish your objectives accurately, prepare a thoroughly detailed preliminary program and then draw up a master prospectus of the overall project. By starting your program far in advance, the principal objectives can be more fully developed as the architect, consultants, and engineers prepare the plans and specifications.

A fully detailed prospectus for a given food service operation will certainly define what you want and expect. Moreover, your consultants,

architects, and engineers can more efficiently plan and design the building and food facilities to perform the services that you and your customers will want and expect.

This is indeed the most important period in the overall planning and development of your food service operation. During this period of programing, your ideals should be high, as though the "sky were the limit." You can always pare them down to fit a budget or other limiting factors, but "it's garsh awful" hard to add onto or raise the standards of value and quality once your ideas have begun to crystalize and take shape in the planning processes.

Where, how, and when can we start planning a project? "There must be a beginning." Perhaps the best way to begin is to start stockpiling "ideas"—ideas of every conceivable nature, for every phase of the entire operation, from the back of the house to the front, or from the front door to the back door. Whichever happens to fit your thinking procedure, you must start digging into the "gray matter" from the very beginning and continue to think each factor through carefully step by step.

You soon learn, if you haven't already, that you cannot force an idea. Many times an idea can be coaxed by entertaining a related thought. You only wear yourself down with frustration and panic by trying to force an idea or the solution therefore. Usually, we must take ideas as they come. And an idea may come to you from anywhere and at any time.

So, begin looking for and stockpiling ideas for the new operation or the existing one to be rehabilitated. The writer has found it most profitable to use 3″ x 5″ scratch pads or index cards for jotting down ideas. These little "gems of recorded ideas" can then be filed systemmatically until needed.

Preparing the Prospectus

When you attempt to establish the principal objectives for your proposed enterprise, the organization of your primary ideas is of utmost importance. The manner in which your ideas take shape should be directed into some pattern or organized form. This can be done by arranging a check list of the principal ideas or factors to be developed through systematic research.

As you organize and arrange your ideas into the form of objectives, you are giving these thoughts and ideas life and being. You are beginning to create when you record these ideas and objectives and you become enthusiastic about the development. This enthusiasm is most important, for at this point you are inspired and motivated. And motivation will help you to persevere when the going gets tough and the going may get very tough. Considerable cerebration is the price that must be paid to create that million dollar idea. Recording your objectives into an organized form unites your ideas in orderly fashion. This, then, is the start of your master prospectus.

The master prospectus becomes the "master plan" or "specifications" to direct the creative work of the consultant, architect, and engineers. It also controls the work eventually to be done by the general and sub-contractors who will finally complete the construction, decoration, and appointing of the building as well as equip the production facility and make it ready for "you to put into operation." Thus the prospectus eventually becomes the "master formula" for your goal of success.

Many a food service establishment has been started with the idea that "good food courteously and well served in pleasant surroundings at reasonable prices" is the principal key to success. True though this statement may be, it is merely the beginning. The basic formula or recipe for a successful food service operation requires many more ingredients that must be carefully weighed or measured and then blended together in the overall preparation. In order to achieve the desired results, the recommended recipe should be followed as closely as possible.

A guide form or outline that may be helpful as you proceed with your research in establishing the principal objectives—in fact, the entire development of your master prospectus—is set forth below.

Twelve Factors Basic to Success

Twelve principal factors are basic and exceedingly pertinent to the overall success and prosperity of any commercial food service operation:

1. Organization
2. Location, building, and building site
3. Market potential
4. Kind of operation
5. Service: type, quality, and time of operation
6. Menu: type, extent, quality, and pricing.
7. Atmosphere: decor, appointments, and entertainment
8. Service areas: dining rooms, coffee shop and cocktail lounge
9. Production areas: receiving, storage, preparation, cooking, and service
10. Personnel
11. Management: policy, accounting, and administration
12. Maintenance: safety, housekeeping, sanitation, and repairs.

Each of the above factors must be fully considered and thoroughly surveyed in the research

that precedes and parallels the preliminary programing as well as throughout the final development of the master plan.

Your prospectus verbally illustrates in detail exactly what is wanted and expected to be worked out in the final program of planning and engineering the whole project.

It should be stressed that a good prospectus is not wordy. It is to be studied and used by extremely busy people. Therefore, the prospectus should be as brief as possible but yet sufficient to get across your principal ideas.

Give a title and a number to each paragraph in the prospectus and identify every sub-paragraph with an alphabetic letter. This identifying code system will be most helpful for locating a certain article or idea when it becomes necessary to refer to specific sections of your prospectus in communication by telephone or letter.

Your prospectus should be comprehensive and enough copies should be reproduced so that each person responsible for further research and development may have a copy as a guide.

The format of your prospectus is also important. First, it should reflect good English composition. Further, it should be carefully prepared, precisely organized, brief and to the point, consistent and complete in detail and follow through. Each objective should be practical—something that could be further developed, financed, built, and then efficiently managed.

As you proceed to develop your program and draw up the prospectus, make a checklist of the objectives and purposes you want to accomplish. Then classify each objective idea and/or purpose into "general" and "specific" categories. The detailed outline of the "Twelve Basic Factors" as set forth below should prove helpful.

Organization

1. *Organization*: Is your firm in existence or in the process of being organized—is it individually owned, a partnership, or a corporation?
   - A. If an existing business, the whole of the organization should be reviewed in relation to the importance of this new addition to the parent company and vice versa.
   - B. If a new organization still in the stage of romance, it is well to engage counsel and have your initial agreements legally documented as this is the best way to keep good friendship.
   - C. Start your prospectus with the name, address, and telephone number of 1) the company or corporation; 2) the company's representative; and 3) the new project's title.
   - D. State or give a brief resume of your company's history, including such information as: 1) whether this is a single unit, independently owned and operated; or 2) this project is another counterpart of a multi-unit organization; or 3) this is an additional unit in a franchised corporation.
   - E. If this project is a new and additional unit of a multi-unit operation, provide a record of capacities, sales volume, and special innovations of merchandising policy presently employed in the other existing units. Give a description of a typical meal as it is presently served: 1) breakfast; 2) lunch; 3) dinner; 4) supper which may be considered as the menus and service to be included in the new operation. Care should be taken to use only the good features and innovations and a note should be made to avoid any shortcomings of the other counterparts.

Location

2. *Location, Building, and Building Site*: The building site should be selected, considering the market, in a good location with available space that is adequate and accessible.
   - A. Will the property be purchased or leased?
   - B. Is adjoining property available for future needs? It is wise and foresighted to consider this aspect before and not after making extensive capital improvements. Such may increase the value and cost of obtaining or leasing added area which may become essential for future expansion and/or necessary for increasing needed parking space.
   - C. If the contemplated property is to be leased, by all means make certain that the terms of your lease contract are sufficient to allow a reasonable write-off time to protect your capital investments.
   - D. Arrange all leasehold adjustments before making any major capital improvements.
   - E. Check first to learn whether the landlord will pay all or part of any leasehold improvements. (A bit of selling here may prove quite worth while.)
   - F. The geographical location is most important to all other phases of your planning.
   - G. Discuss the general description of the building, the building site, etc.
   - H. Give a short verbal sketch of the proposed architectural features of the building.
   - I. Is the building completely new, a new addition, or a rehabilitation project?

Market Potential

3. *Market Potential*: The market potential should be analyzed to consider the patron to be served and/or customers catered to in a survey requiring considerable research:
   - A. Who are the customers sought?
   - B. Where do they live and by what mode of transportation will they come to you?

C. What is their social and economic status?

D. What are their social and eating habits, their wants, their likes and dislikes?

E. What are they able and willing to pay?

F. How many are there who eat out only occasionally and how many who eat out regularly?

G. Are they local people or do they come from some distance, as for instance tourists or conventioneers.

H. Are they individuals, couples, large and small groups, or families with children?

Kind of Operation

4. *Kind of Operation.* The type of food service establishment should be determined in relation to the effect of overall planning:

Check List of Installations Requiring Special Facilities

Club and/or Hotel:

a. Restaurant
b. Cafeteria
c. Coffee shop
d. Bar grill
e. Limited menu food shop & soda fountain
f. Room service
g. Banquet and private party functions

Commercial Restaurants:

a. Chicken, steak & chop house
b. Seafood house
c. Cantonese cuisine
d. Italian cuisine
e. Bar-B-Q
f. Pizzeria
g. Commercial cafeteria
h. Smorgasbord
i. Specialty buffet
j. Drive-in
k. Kosher & delicatessen
l. Dairy bar
m. Short order restaurant
n. Automat
o. Beef buffet

Commercial & Industrial Caterers:

a. In-plant feeding
b. Industrial box lunch
c. Private party & banquet
d. Air lines

Institutions:

a. Hospital
b. School
c. Church social facilities
d. College union
e. College dormitory, fraternity, or sorority
f. Military subsistence
g. Penal institution
h. Mental institution

Service

5. *Service—Type, Quality, and Time of Operation*: The kind, quality, and speed of service or services to be established and maintained, plus the hours of operation, will require much serious consideration. These factors and the menu must be planned in direct relation to all other phases of your planning. Describe the services to be planned for:

A. Formal, French, Russian, or informal service

B. Waiter or waitress

C. Table, booth, or counter; buffet or cafeteria

D. Silver or china

E. Linen or paper

Menu

6. *Menu*: The menu should be established as early as possible giving consideration to:

A. The quality and format of the menu itself.

B. A la carte or maitre d'hotel or a combination of both

C. The extent of the menu, taking into account the number, quality, and variety of menu items to be served.

D. The manner in which each menu item is to be prepared and served considering recipes and portions.

E. All specialty items should be considered and planned for during the programing and not after the equipment has been installed.

F. How extensively convenience food products will be used in preparing menu items, such as soup and sauce bases, dehydrated vegetables, pre-prepared vegetables, pre-fabricated meats (either oven and range ready) or wholesale cuts.

(Factors D, E, and F are most important to your consultant and food facilities engineer. He will need this pertinent information in order to properly select and size the standard items of kitchen equipment and to design all other items of equipment that are to be custom fabricated. When your consultant has been furnished with this important information in advance of his preparation of plans and specifications, he can plan and design each equipment item to the production requirements of each menu item and thus assure better preparation at lower cost.)

G. To summarize these requirements: determine the types of food and the qualities of each you plan to produce and serve, list the items and the preparation each requires in order to determine the basic equipment needed for production and thus assure your kitchen operations will be planned most efficiently.

Atmosphere

7. *Atmosphere*: Your restaurant will be identified by the environment you create through good food courteously and well served in pleasant surroundings at reasonable prices. The "pleasant surroundings" may be a well-planned and equipped drive-in; a modern designed and decorated coffee shop or cafeteria; a rustically designed specialty restaurant; or a formally designed, classic type of gourmet restaurant.

A. Create the atmosphere you desire through:

1) Architecture, design, and construction
2) Decor achieved through the use of materials, fabrics, and paint
3) Appointments—furniture and the like
4) Lighting in many forms of illumination
5) Music or entertainment, etc.

B. Properly plan and program the effect of preparing and serving food

C. Control the elements of noise and confusion in the handling and serving of foods and the bussing of soiled dishes

D. Plan the service areas to eliminate unsightly activities (such as scrapping plates) from the customer's view.

Service Areas

8. *Service Areas*: The dining rooms, coffee shop, cocktail lounge, snack bars and other areas are the revenue-producing areas. In these areas you meet, serve, and satisfy your customers. While you may not be able to fully satisfy every guest, customer satisfaction is your basic objective. The planning of these areas must incorporate the programing of the three preceding factors (Articles 5, 6, 7—Service, Menu, and Atmosphere.) Everyone likes a busy dining room and most people avoid empty ones. Consider the following points in planning your service areas:

A. Keep seating arrangements flexible. Anticipate the volume and turnover as accurately as you can and provide the proper size of table to handle singles, deuces, fours, and large groups with equal ease to result in a minimum of empty tables and lost space.

B. Plan your dining room layout so that parts of the overall area can be shut off when not in use to minimize the required serving staff during slow business periods.

C. Plan for the division of a large dining room into several smaller areas through the use of folding doors or portable panels to arrange space for private functions.

D. Provide each of the smaller dining areas with its own atmosphere to afford the maximum customer satisfaction.

E. In planning dining areas for hotels—especially the coffee shops, cafeterias, specialty restaurants, etc.—provide for entrances from the street as well as for access from the hotel lobby or other areas.

F. As a note of caution, when planning the space requirements for the dining areas, consult and comply with all local codes and ordinances with respect to exits and occupancy of public areas.

G. Check list for planning public and/or patron dining areas:

1) Proper utilization of space
   a. lobby and/or foyer, rest rooms, check rooms, etc.
   b. Dining areas
   c. Serving areas

2) Aisles, doors and/or corridors
   a. Properly arranged for both the patron and service traffic
   b. Location of doors from entrance to exits to afford good patron access
   c. Location of service and/or kitchen doors to afford good service traffic. (Consider electronic controlled doors.)

3) Good arrangement of seating to assure
   a. Efficient patron accommodations
   b. Efficient service
   c. Pleasing atmosphere

4) Serving Facilities
   a. Efficient waiter-waitress pickup areas and facilities
   b. Plan convenient pickup points so that menu items may be picked up in orderly sequence and require a minimum of steps. (Hot foods should be picked up last.)

H. The space requirements for a given seating capacity for any type of food service facility may vary greatly and must be planned according to the type of patron to be catered to, the type of menu, and the kind of service to be planned and maintained.

Production Areas

9. *Production Areas*: While the study of dining and service facilities are being made, the production areas should be properly planned in direct relation there-to. In past years, too many food service operations have been built where the space that remained (after the elaborate planning of the public and dining areas) was used for storage and the very important food production departments.

The production area is equally as important to the overall success as that of the service areas in your food service establishment. Throughout the programing and planning of this area you will need to think each step through and then check and double-check to make sure that there are no omissions and oversights. This is vital because the ultimate success of the overall project will depend largely upon the decisions that are made at this time; faulty judgment can be serious and disastrous.

Presently we will leave the final selection, design, and layout of the production facilities—storage, preparation, cooking, baking, serving, and scullery equipment—up to the consultant and engineers. The purpose of this prospectus is to describe the principal needs and outline and supply the pertinent information needed by your consultant and/or planner, such as outlined in the preceding areas under *Sections 5, 6, 7and* 8.

A. The following are twelve general but vital points to be considered in your programing and planning:

1) Make sure that your layout is developed for good work flow from the receiving of raw produce to the final prepared menu items served to your guest.

2) Keep crossing of paths and back-tracking of your employees to a minimum.

3) Near the receiving door provide a scale, a stand-up type of desk, and ample space for placing deliveries before and after checking their delivery until they can be stored.

4) Plan your layout for good receiving and stock control.

5) Employ labor-saving facilities, such as conveyors, chutes, trucks, tote boxes, portable tray racks, etc., in all materials handling.

6) Reduce fatigue, save labor, and gain the speed and ease of handling supplies by using equipment on wheels for storing and moving products.

7) Plan your storage facilities of both the perishable and non-perishable supplies in relation to the various types, quantities, and size of boxes, crates, bags, cans, cartons, and other containers and in the volume in which supplies of raw produce will be delivered to meet your needs.

8) Have walk-in refrigerators designed and constructed with interior floors at the same level as adjacent kitchen floors so that trucks, carts, and portable shelving can be wheeled in and out.

9) Provide adequate freezer space to meet the needs of the increasing use of prepared frozen food items.

10) Plan your equipment needs to keep hot foods hot and cold foods cold.

11) Employ, where applicable, work simplification procedures in the planning of each department to increase productivity and reduce your labor costs.

12) Provide good illumination. Proper lighting for the various work centers makes for a) increased productivity; b) less fatigue; and c) safer working conditions.

B. The outline below is a suggested guide form for developing the prospectus required for your production areas. We shall continue from the front to the back of the house. (You may choose to follow the logical sequence of food service operation from the receiving entrance and proceed through the various preparation activities to serving your customers.)

1) Kitchen serving facilities for waiter-waitress or steward:
   a. Service of all menu items to dining room personnel by kitchen staff or maximum waiter-waitress do-it-yourself service.
   b. Proper arrangement of pick-up stations in the serving area to minimize steps of service personnel.
   c. Pass-through refrigerators and food warmers.
   d. Checker and cashier.

2) Dishwashing:
   a. Central or decentral.
   b. Conveyor or busboy.

3) Main kitchen:
   a. Cook's work table and serving facilities.
   b. Cooking, roasting, broiling, frying, steam kettles, steamers (high or low pressure), top of range, etc.
   c. Bakery, extent of baking required.
   d. Pantry and grad manager.
   e. Preparation departments, vegetables, meat, fish, etc.

4) Coffee shop and/or specialty shop kitchen:
   a. Separate or in main kitchen.
   b. Describe various departments as in No. 3 above.

5) Storage facilities: (*Ample for all storage needs.*)
   a. Dry, non-perishable.
   b. Refrigeration, perishable.
   c. Sundries, non-food items
   d. Separate storage and control for liquor supplies.

6) Receiving facilities:
   a. On street or over dock.
   b. Parking space for delivery trucks.
   c. Receiving rooms with scales, checking table, etc.
   d. Parking space for hand or flat-bed trucks, etc.

7) Purchasing: (*Are supplies to be obtained from a central commissary or purchased direct?*)
   a. If supply is from a central commissary:
      1. Frequency of deliveries.
      2. How deliveries are to be made.
      3. List items to be supplied by commissary, including descriptions of each (i.e., to be received fresh or frozen, prepared for immediate cooking and serving or will preparation be necessary).
      4. List items to be purchased from local purveyors with description of each.
   b. If selective purchasing from purveyors exclusively:
      1. Frequency and time of deliveries.
      2. How deliveries are made.
      3. Descriptions of principal items to be supplied (*as above.*)

C. Here is a guide form to be used in conjunction with the preceding form to be employed in the layout planning:

Kitchen and production area planning guide:

1) Proper utilization of space
   a. Receiving and storage areas.
   b. Preparation work and cooking areas.
   c. Serving areas and ware washing areas.

2) Relative location of each department to afford efficient
   a. Supervision
   b. Communication
   c. Utilization of personnel

3) Convenient work and utility areas
   a. Work islands created through use of portable equipment that may be conveniently arranged around the kitchen worker (who is the center of the work island).
   b. Sufficient and convenient parking area for portable tables, racks, trucks, and all other portable processing equipment.
   c. Lavatories for washing hands, janitor, and cleaning facilities.

4) Traffic Lanes
   a. Properly arranged aisles of the right width, etc. Traffic lanes not to be used as work aisles unless they are extra wide.
   b. Straight lines of product flow.
   c. Minimum crossing of paths and backtracking.

5) Departmental layouts
   a. Proper arrangement of equipment for efficient handling, preparation, cooking, and serving of food products.
   b. Proper selection and design of equipment for the function to be performed.
   c. Proper functional features of the whole department to fulfill the purposes planned for the overall facility layout.
   d. Consider the relative location of each department for the direct and smooth flow of the menu item in production from the raw to the final preparation and serving.

Personnel

10. *Personnel*: Your personnel staff (including each employee from the general manager down to the lowliest dishwasher) may in a way be considered the mind, the heart, and the soul of your organization. The executive staff is the mind. The whole staff is the subconscious mind, the heart, and the soul of the organization.

    This reasoning is not to detract, in any sense, from the wonderful facility you may have developed and built. The facility in itself cannot do anything; your staff gives these facilities life and being. Together you will have the means to become what you will. Your management and your staff give the operation personality. This determines whether you gain reputation and success, share only in mediocrity, or become just one more failure.

    As we plan and program to build an establishment to please and satisfy the customer, it is well to consider also the interests of those who will play an important role in helping to achieve the purposes herein outlined.

Qualification: The qualification of employees to render the highest quality of service.

Communication:

A. Maintain good communications with employees who deal directly and indirectly with patrons.
B. Give instructions and seek suggestions.
C. Solicit ideas from employees for ways of improving service, cutting costs, etc. They are often aware of things you may not know about.

Employee interests:

A. Provide ample room for employee facilities.
B. Furnish locker and rest rooms that are well lighted, appointed, and ventilated.
C. Provide a clean, attractive, well-ventilated employees' dining room (and perhaps a lounge with TV) to add to the morale of your whole staff. A lounge with TV has been well accepted by employees required to work split shifts.

It is beneficial and profitable to plan the whole of your food service operation with much consideration for the comfort and convenience of each employee on your staff.

A good employee is a precious commodity. Mr. Arthur Avery of the U.S. Navy's Supply Research Development Facility sums up this truth very aptly:

"Labor is a precious commodity in today's food service industry. If maximum production is to be obtained from the use of labor, every effort must be made to provide optimum environmental conditions and equipment must be designed to make the best use of this human machine."

No longer can we afford to hire two inferior men to do the job of one good one. Nor can we work a good man to the point of quitting just because there is another man outside waiting for the job. Today, good men are in very short supply, and even the poor ones demand good wages. Also, with the extreme complexities of our modern kitchen equipment and food operations, it costs up to $500 to train the average person to be a productive member of a feeding operation.

(Thus,) "If we are to be smart businessmen and keep our workers and make it possible for both the good and the not-so-good workers to put in a good day's work, then it behooves us to make full use of "human engineering"* as we plan and program for a new and better food service facility."

Management

11. *Management*: The art and science of good management and business administration is an infinite subject and neither space or time permits a lengthy discussion of this important topic. Cornell's School of Hotel Administration presents a variety of curricula under such headings as "Hotel Accounting," "Hotel Management," "Restaurant Management," "Club Management," "Institutional Administration," "Food Service Planning and Design," etc. Each curriculum is made up of forty to forty-five courses and requires four years of intensive study to complete.

    Many will hold that experience is the best teacher. True, we have no argument with this viewpoint. However, this maxim doesn't account for the fact that formal education is also an invaluable aid to the process of learning. Education lays the basis for the teachings of practical experience. These points are made here, not to plug Cornell or any other school, but merely to point out that the job of good management of the modern food service establishment requires a lot of expert know-how. If you don't have a fair portion of this know-how, it is advisable to obtain it in one way or another. This can be done either through study

*Human engineering is the design of human tasks, man-machine systems, and specific items of man-operated equipment for the most effective accomplishments of the job.

or experience on your part or by bringing into your organization someone who already has earned the reputation of being a good manager.

In effect, you have already started much of your most important programing through preparing this prospectus and developing the required research. This is barely the beginning. Good management is a continual process of programing objectives and purposes.

As you continue here with this program, start now, rather than after the opening date, to work out the more complex as well as many minor details of management as suggested below:

A. Establish administrative policies in each of these areas:
   1) Managerial—organizational chart and departmental functions.
   2) Personnel—outline employees' work and job functions.
   3) Accounting—establish a method of record keeping and chart your financial course.
   4) Merchandising—research methods to make and sell a better product.
   5) Advertising—hide not your candle under a bushel; let it be seen.
   6) Public relations—study ways and means to win friends and influence people.
   7) Maintenance—standardize methods of inspection, cleaning, adjusting and reparting, and clearly define the responsibilities involved.

B. Design your organizational chart, taking each department into full consideration.

C. Outline managerial procedures to execute the following:
   1) Keep abreast of the times by taking an active interest in social, civic, and political affairs and study the local and national economic trends.
   2) Study the effect of weather conditions upon your daily business.
   3) Give your customers the opportunity to make suggestions or register complaints either by personal contact or by questionnaire cards with self-addressed, sealable envelopes.
   4) Make a careful study of all customer complaints and suggestions. Where applicable, have the necessary adjustments taken care of and consider the worth of ideas suggested.
   5) Analyze the guest checks. Study their content and average pricing.
   6) Make scheduled analyses of consumer patronage, their income status, ages, sex, and their menu choice as well as the food they leave on their plates.

D. All objectives should be planned on the basis of a long range program for the best results:
   1) This venture cannot be a get-rich-quick scheme.
   2) Plan a reasonable period of time to amortize the initial indebtedness and/or any subsequent debts.
   3) Establish plow-back funds for perpetual improvements, maintenance, redecoration, alteration, replacement, and new equipment, etc.
   4) Assume a healthy attitude toward wages. Pay enough to the lower scale and enough, but not too much, to the higher scale employees. This should also encompass the payment of wages, dividends, and/or bonuses to top management.

   The profit objective is due much consideration after including all of the above points. A reasonable profit is legitimate. Yet the owner and principal stockholders really have no moral right to rob an enterprise of its normal operating and maintenance funds in order to pay long or excessive profits that will eventually prove fatal to an otherwise healthy and going business.

Maintenance

12. *Maintenance*: On this area of managing an operation hinge many factors that will determine the success or failure of an otherwise well-planned and established food service facility.

    In order to survive the ever-increasing costs of labor as well as the lack of trained and experienced help, the modern food service operator is turning more and more to the machine and some type of automation.

In this state of mechanization, there are pertinent factors that are far too often overlooked and sorely neglected. Today more than ever before, we depend upon the accurate functioning of appliances and machines.

Modern methods of food handling, through storage, preparation, cooking, and baking to the serving and ware washing require accurate control of temperatures, time, power, and speed. Thermostats, switches, relays, solenoid valves, expansion valves, timers, regulators, etc., must be kept in constant repair and adjustment. Cutting edges in slicing, grinding, cutting, and chopping machines must be kept sharp. All of these machines, along with the mixers, dishwashers, oven- and range-burners, and the like must be kept in adjustment. Any maladjustments will directly or indirectly affect the quality of your finished food products.

Maintenance is a necessary operating expense. Here is where that penny-wise and pound-foolish attitude toward such an expense can prove fatal in the long run. Minor breakdowns often cause crippling delays that could have been avoided by correct use, care, and maintenance. There are but few food service operations today in which justifiable attention is given to training employees in the proper use and care of our modern, complicated, expensive food service equipment.

Most large operations, such as hotels, chain restaurant organizations, industrial feeders, hospitals, and other institutions have maintenance crews who can be trained to service their food service facilities. In most of our large metropolitan areas there are outside maintenance services available that can be contracted to service your facilities. Most manufacturers of food service equipment maintain service departments in local metropolitan areas.

Instruction in the proper use and care of kitchen equipment is pertinent to the safety of those responsible for using meat saws, slicers, grinders, choppers, and the like. Ignorance and carelessness cause many kitchen accidents. Thus, the training of employees in the proper use and cleaning of kitchen machinery and the proper inspection and maintenance procedures will pay rewarding dividends in reducing kitchen accidents.

Sanitation is another most important factor which is too often overlooked and neglected. It is dangerous and unsanitary to neglect the proper care and cleaning of mixers, grinders, choppers, slicers and work surfaces, food utensils, and other preparation facilities.

Good housekeeping is important to the front of the house and in most food service operations, it is carefully done. But in many food service operations the back of the house is sorely neglected. If patrons were required to enter the dining room via the kitchen, we might lose our standing as the fourth largest industry. The guests would turn away and seek another place or eat at home. Good housekeeping, maintenance and repair should be one of the key thoughts in programing and planning for any kind of food service.

Conclusion

Planning the food service operation so that it will be successful from the outset and, even more important continue to be successful for years to come, requires creative thinking translated into firm, clear objectives.

These objectives must then be thought out to the most minute detail during the pre-planning stage. Changes can also be made on the drawing boards but when the stage of specifications and layout is reached it is both difficult and expensive to introduce new ideas and new objectives.

This comprehensive outline was developed to serve as a guide to food service operators to help make them cognizant of the factors involved in good planning procedures. A list of qualified and experienced food service consultants may be obtained by writing to the department of Food Service Planning and Design, School of Hotel Administration, Cornell University, Ithaca, New York.

Books that may prove helpful in food service planning are listed below:

Arthur W. Dana, *Kitchen Planning*, Harper & Brothers, New York, 1945

Kieth R. Little, *Kitchen Layout Logic*, Age Publications Ltd., Toronto 9, Ontario, Canada, 1959. (May also be obtained through Ahrens Publishing Co., 230 Park Avenue, New York City 19.)

John W. Stokes, *Food Service in Industry and Institutions*, William C. Brown Company Publishers, Dubuque, Iowa, 1960.

ASCAP's "Performing Rights" for Music

What has happened to the hotel–and restaurant–orchestra whose soft music and popular arias gladdened the hearts of past generations and provided a background of sophisticated elegance? Too expensive, these days, save in the most luxurious establishments.

Even so, for musical entertainment from other than coin-operated machines, hotels and restaurants now pay anywhere from $25 to $5,000 a year through groups such as the American Society of Composers, Authors, and Publishers, the Broadcast Music, Inc., and the Society of European Stage Authors and Composers.

The "performing rights" for which this fee is paid date back to a U.S. Supreme Court decision handed down in 1917. The case grew out of the following incident:

> Victor Herbert, one of the best-known composers of that day, and one of the founding fathers of ASCAP, heard some of his music played by an orchestra as he ate dinner in Shanley's Restaurant in New York City early in 1913. Herbert thereupon sued Shanley's Restaurant under the infringement provisions of the 1909 Copyright Act. Shanley's and other hotels and restaurants were outraged, since never before had they had to pay royalties for music played on their premises. They argued that the music in public dining rooms, unlike a dance hall, was incidental to the business of selling food and that the music was, therefore, not for profit.

The defendants won their case in the lower courts, but when it was carried to the Supreme Court, Chief Justice Holmes said, in handing down a verdict for the plaintiffs: "If the music did not pay, it would be given up. If it pays, it pays out of the public pocketbook. Whether it pays or not, the purpose of employing it is profit and that is enough."

This case and legal decision then became the cornerstone of ASCAP in serving its membership. The profits of ASCAP's operations were used exclusively to pursue various other infringements with suits. ASCAP members received their first "dividends" from the fees collected by ASCAP in 1921.

Numerous other cases were filed by ASCAP, with the funds thus provided, and prosecuted with vigor to enforce the Supreme Court's decision. Hotels, because of their substantial business and legal staffs, bore the brunt of the litigation.

Music licensed at its source–Muzak, Background Music, Inc., the coin-operated juke box and radio have thus become standard in the typical hotel or restaurant dining room. The "performing rights" fee, plus the high wages and union restrictions placed on live music have made the hotel or restaurant orchestra, once the proving ground and stable income of many a local musician, almost as extinct as the Esquimaux curlew.

Adapted from a report prepared by David W. Chase, manager of the Holiday Motor Lodge (St. Paul, Minn.)

France's New *Signez* Credit Card

Last month the French hotel and restaurant industries instituted a program to launch their own credit card system, "*Signez.*" This plan, intended to simplify the credit card system for travelers in France, may result in the "Visit U.S.A." project becoming a reality for many French nationals.

The new set-up, which has the backing of the *Banque de France* (the equivalent of the Federal Reserve System in the United States) and the approval of the French Government, calls for the issuance to qualified applicants of what will be known as a Universal Credit Card. The card will be valid in at least 50,000 French hotels and restaurants bearing the sign, "*Signez–Votre Banque Paiera*" ("Sign–Your Bank Will Pay).

Signez, the short name for this new credit-card system, is the result of two years' study by, and negotiations between, French hotel operators, restaurateurs, bankers, insurance companies, and the Ministry of France. Its purpose is to provide travelers and others with the facilities of credit payment and at the same time relieve hotels and restaurants of the service charge (in some cases as much as 10 per cent) that they pay to other credit card organizations.

In essence, *Signez* represents an extension of a conventional checking account that makes direct use of banks instead of working through intermediate credit agencies. The sponsor of *Signez* is the International Hotel Association, which has headquarters in France.

Here is how the *Signez* system works:

The person wanting a card fills in an application at his bank, attaches a $10 fee (which is levied annually) and if the bank approves, the application is passed on (and automatically approved by) *Signez*. When the applicant is a new client at the bank, this fact is reported to *Signez* which then conducts its own credit check.

The applicant receives a credit card entitling him to sign for his bills in those hotels and restaurants that are members of the *Signez* system. The $10 fee is applied toward administrative and publicity expenses and for insurance against bad debts.

In using his credit card, the holder presents his credit card which bears his name, address, and signature as well as the name and address of his bank, to the hotel or restaurant operator. The card holder's charge and the information about his credit card are then transferred to a form resembling a blank check, which he signs. This form is deposited in the hotel's or restaurant's bank, where the amount is credited within thirty days. If the proprietor should need cash at once, however, the bank will cash the credit form at a small discount.

The credit form is then cleared to the card-holder's bank, where it is handled like an ordinary check except that it is not deducted from his account for thirty days. Payment is due the fifth of each month following the expenditure; but if the charge is incurred after the twenty-fifth of the month, payment is not due until the fifth of the second month after the charge is made. The card holder is allowed maximum expenditures of $200 a day and $500 a week.

France will serve as the "test country" for the cards and only French nationals or foreign residents with bank accounts in France are eligible to apply. If the experiment proves a success, the plan will be extended to other countries, including the United States.

The possibility of American hotel and restaurant men benefitting from Signez lies in the fact that presently French travelers may take the equivalent of only $350 out of the country with them. Signez will permit them to pay for transportation, hotels, sight-seeing and the like in francs before leaving France, thus permitting them more funds for travel.

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